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Egypt National Health Accounts 2001-02

November 2005

Prepared by:

Dr. Samir Fouad
Department of Planning and Finance,
Ministry of Health and Population

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Abt Associates Inc.
4800 Montgomery Lane, Suite 600 ■ Bethesda, Maryland 20814
Tel: 301/913-0500 ■ Fax: 301/652-3916

In collaboration with:

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Mission

Partners for Health Reformplus is USAID's flagship project for health policy and health system strengthening in developing and transitional countries. The five-year project (2000-2005) builds on the predecessor Partnerships for Health Reform Project, continuing PHR's focus on health policy, financing, and organization, with new emphasis on community participation, infectious disease surveillance, and information systems that support the management and delivery of appropriate health services. PHRplus will focus on the following results:

- *Implementation of appropriate health system reform.*
- *Generation of new financing for health care, as well as more effective use of existing funds.*
- *Design and implementation of health information systems for disease surveillance.*
- *Delivery of quality services by health workers.*
- *Availability and appropriate use of health commodities.*

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and: Karen Cavanaugh, CTO
Health Systems Division
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Abstract

National Health Accounts (NHA) is an internationally accepted methodology intended to provide a complete depiction of the health sectors resource flows, showing how health monies are used and where they come from. This is the third round of NHA for the government of Egypt and the Ministry of Health and Population, demonstrating their continued commitment to use of factual information to support the country's policy framework since the early 1990s. This report seeks to demonstrate the flow and extent of the use of public, private (including households), and donor health funds in Egypt for the year 2001-2002. Findings reveal that Egypt's spending on health has increased to 6 percent of GDP from 3.7 percent in 1994-1995. Total per capita health expenditures are 346.21 LE ($75.26), with 68 percent financed by private sources, 31 percent by public sources, and one percent by donors. These and other findings raise topics for further discussion regarding quality of care, equity, efficiency of the health sector, and rationalization of expenditures.

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Acronyms

CCO	Curative Care Organizations
DOP	Department of Planning and Finance
ENHHEUS	Egypt National Household Health Expenditure and Utilization Survey
FY	Fiscal Year/Financial Year
GDP	Gross Domestic Product
GOE	Government of Egypt
HIO	Health Insurance Organization
HSRP	Health Sector Reform Program
LE	Egyptian Pound
MCH	Maternal and Child Health
MOF	Ministry of Finance (Treasury)
MOHE	Ministry of Higher Education
MOHP	Ministry of Health and Population
MOSA	Ministry of Social Affairs
NGO	Non-Government Organizations
NHA	National Health Accounts
NHIF	National Health Insurance Fund
OECD	Organization for Economic Co-operation and Development
OOP	Out-of-pocket
PHR*plus*	Partners for Health Reform*plus*
PIO	Pension Insurance Organization
SHIP	School Health Insurance Program
SIO	Social Insurance Organization
SNA	System of National Accounts
THE	Total Health Expenditures
THIO	Teaching Hospital and Institutes Organization
UNFPA	United Nations Population Fund
UNDP	United Nations Development Programme
USAID	United States Agency for International Development

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Dr. Mostafa Abdel-Atty, Head of HIO

Dr. Esmat Mansour, 1st undersecretary, Primary Care Sector

Dr. Yehya El-Hadidy, Undersecretary for Population sector

Mr. Moustafa Abo El-Saoud Undersecretary of Admin. & Finance

Dr. Sanaa Ibrahim, Director general for NICHP

Department of Planning

Dr. Samir Ahmed Fouad, Director General

Dr. Alla Mokhtar Morsy, DOP member

Dr. Mervat Taha, DOP member

Eng. Khaled Sharawy, IT Specialist, DOP member

Mrs. Azza Morsy, DOP member

Pharmacutical Sector

Dr. Gebril Ali, Information Center Director, CAPA

Mr. Ahmed Ibrahim Ali, Director General for Health Sector, MOF

Other stakeholder committee members

Other Ministries

Ministry of Electricity, Ministry of Industry, Ministry of Transportation, Ministry of El-Aokaf,

Ministry of Higher Education

Syndicates

Medical, Engineering, Agricultural

WHO/EMRO

M. Driss Zine Eddine El-Idrissi

USAID - PHR*plus*

Mildred Howard, USAID Egypt

Nadwa Rafeh, Abt Associates Inc.

A.K. Nandakumar, consultant

Osmat Azzam, consultant

Dr. Moushira ELshafei, consultant

Rifat Radwan, Abt Associates Inc.

Manjiri Bhawalkar, Abt Associates Inc.

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Foreword

Letter from the Minister

In response to the growing need for health expenditure information for evidence-based policymaking, the Ministry Of Health and Population (MOHP) of Egypt, in collaboration with international advisors from the USAID-funded PHRplus project, have implemented a study on National Health Accounts of Egypt for 2004-2005.

National Health Accounts is an internationally recognized tool for measuring a nation's total health expenditures in a comprehensive manner. It describes the expenditure flows-both public and private-within the health sector of Egypt. This tool also describes the sources, uses, and flow of funds within the health system and is a basic requirement for optimal management of the allocation and mobilization of health sector resources.

In this era of health sector reforms and their equity implications, this study supports such efforts with the overall goal of assessing, in a comprehensive manner, the modes of financing the health sector and makes an important contribution to re-thinking policy directions.

Prof. Mohamed Awad Tag Eldin

Minister of Health and Population

Executive Summary

Background on Egypt NHA Activity

For more than a decade, Egypt's Ministry of Health and Population (MOHP) has been working to base its decision-making processes on empirical evidence. During that time, the United States Agency for International Development (USAID) has actively supported the MOHP and government of Egypt in the creation of an evidence-based policy framework: USAID projects such as the Data for Decision Making, Partnerships for Health Reform, and now Partners for Health Reform*plus* (PHR*plus*) have provided technical assistance and built capacity at the MOHP to collect and analyze essential planning data.

An integral component of the MOHP/USAID partnership has been the implementation of National Health Accounts (NHA), a methodology designed to give a comprehensive description of resource flows in a health care system, tracking where resources come from and how they are used. NHA provides to policymakers reliable national data on sources and uses of funds for health, preferably comparable over time and across countries, in order to monitor, evaluate, and enhance their health system performance. By better understanding their health systems, policymakers can design effective policies to improve health system performance.

Experience in the countries that have developed and used NHA has shown that the accounts are very helpful in answering questions such as:

- How are resources mobilized and managed for the health system?
- Who pays and how much is paid for health care?
- Who provides goods and services, and what resources do they use?
- How are health care funds distributed across the different services, interventions and activities that the health system produces?
- Who benefits from health care expenditure?

While several costing and other health expenditure studies have been carried out in Egypt, none used the comprehensive framework of NHA. Egypt first carried out NHA for 1991-92 and is now the only country in the Middle East/North Africa region that has undertaken its third round of NHA.

Objectives of Egypt NHA 2001-02

Egypt has a 2 percent population growth rate, which implies nearly 1.5 million additional people every year (World Bank 2005). Higher birth rates, reductions in infant and maternal mortality rates, and improved life expectancy have contributed to the burgeoning population. Egypt thus faces increasing demands for health care and an escalation in health care costs, which will exacerbate the

financial burden on the public sector, households, and the entire system. Some of the policy questions raised are:

1. Is Egypt spending a reasonable amount for health of its population?
2. Is this amount being spent efficiently and effectively?
3. Is there equity in health care for the various segments of the population?
4. Do all segments of the population access health care easily?
5. Does the distribution of expenditures between curative care, preventive care, and public health conform to the government's plans and objectives, such as "*health for all by the year 2000"*?

The objective of the Egypt NHA is to describe in a comprehensive manner the flow of all health expenditures in its health care system, which will help to answer these policy questions.

Data and Methodology

The Egypt NHA 2001-02 study used the methodology prescribed in the *Guide to producing National Health Accounts* (World Health Organization, World Bank, USAID 2003), a manual that provided a standard methodology for estimating health care expenditures. Using the guide ensures a systematic approach and consistency in the way expenditures are categorized, which allows for international comparisons.

For this report, data were collected from a number of secondary and primary data sources. Secondary data came from financial records of the MOHP, Health Insurance Organization (HIO), and other public agencies. The 2002 Egypt National Household Health Expenditure and Utilization Survey was used to estimate household expenditures. Some primary data collection from donors and nongovernmental organizations was carried out.

It should be noted the NHA tables are organized according to the International Classification of Health Accounts functional classifications. Section 4 of the report, 'Expenditures at subsystems level' provides a breakdown according to both NHA standards and government of Egypt categories. These categories were an additional calculation done outside of the main NHA tables. In accordance with the Producer's Guide, pharmaceuticals and other medical non-durables include all expenditures incurred at pharmacies and outlets that are autonomous from hospitals and health centers. To be consistent with this definition, the Egypt NHA includes those expenditures incurred at private pharmacies and HIO pharmacies. The main sources of such expenditures are household out-of-pocket (OOP) payments for drugs, the HIO, and public firms.

Findings

In 2001-02, Egypt spent nearly 6 percent of its gross domestic product (GDP) on health care, and increase from 3.7 percent in 1994-95. The total health care expenditure (THE) in Egypt for 2001-02 amounts to approximately Egyptian pounds (LE) 23 billion, a 207 percent increase since 1994-95. Some of the growth in the health care expenditures can be attributed to the escalation of health care costs in Egypt and increased demand for private sector services. The MOHP outlays for health care

have also increased dramatically, by nearly 290 percent in the same time period. Table ES-1 highlights the key findings of the 2001-02 NHA.

Table ES-1: Summary Findings

	2001-2002 (in LE)	2001-2002 (in US$)	1994-95
Total population	66,668,346		59,181,102
GDP estimates for Egypt	LE 385,020,000,000	US$ 83,700,000,000	LE 203,135,140,000
Total government budget	LE 126,000,000,000	US$ 27,391,304,348	
Total health expenditure (THE)	LE 23,081,139,867	US$ 5,017,639,101	LE 7,516,000,000
Percent GDP spent on health	6.0%		3.7 %
THE as percent government budget	18.3%		
MOH expenditures as percent govt budget	4.4%		
GDP per capita	LE 5,775	US$ 1,255	
Govt expenditures per capita	LE 1,890	US$ 411	
THE per capita	LE 346.21	US$ 75.26	LE 127/US$ 38
Pharmaceutical expenditure*	LE 8,584,524,962	US$ 1,866,201,079	
Pharmaceutical expenditures per capita	LE 129	US$ 27.99	
Pharmaceutical exp. as percent of THE	37.2%		
Average exchange rate (2001-2002)	LE 4.60 = 1 US$		

Sources: MOHP Department of Planning and Finance for population estimates, International Monetary Fund website for exchange rate
Note: All values are expressed in nominal terms.
* Pharmaceutical expenditures may be underestimated as this figure includes expenditures incurred at independent pharmacies and not drugs administered at health facilities or by pharmacies within health facilities.

Sources of Health Care Funding in Egypt

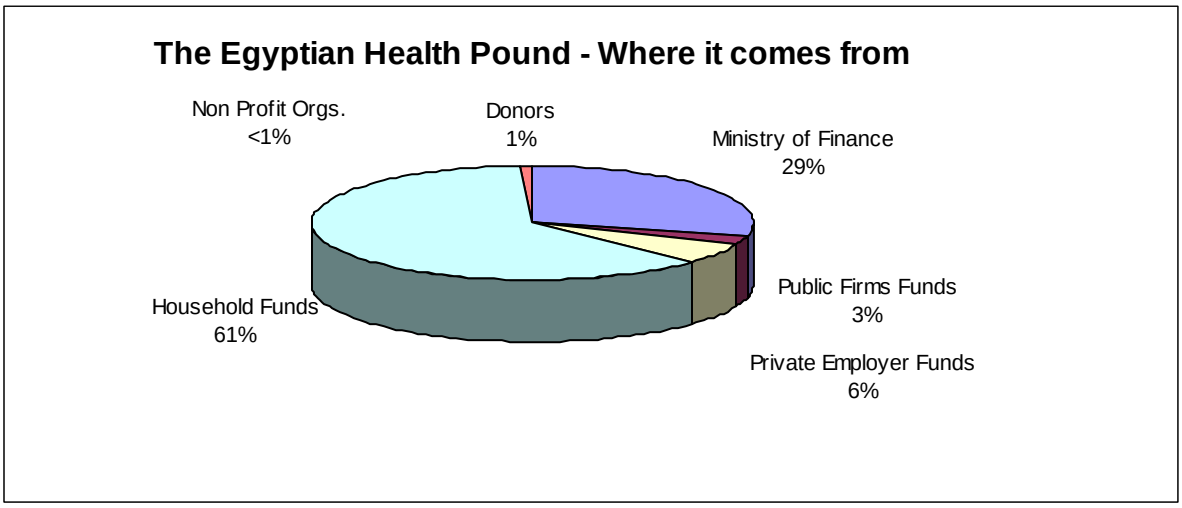
Table ES-2 and Figure ES-1 show the sources of health financing in Egypt. As Figure ES-1 clearly illustrates, private sources, primarily households, shoulder most of the burden of health financing. In Table ES-2, a comparison of sources of funding between the 1994-95 and 2001-02 rounds of NHA reveals that the public contribution declined from 46 percent to 32 percent.

This decline in public spending is compensated by the substantial increase in the contributions of households, which by 2002 grew to 61 percent. Part of this large increase can be attributed to the escalation of health care costs in Egypt and increased demand for private sector services.

Table ES-2: Sources of Health Care Funds in Egypt, 1995 and 2002

	2001-02 (in LE)	2001-02 (%)	1994-95 (%)
Public sources	LE 7,254,858,295	31%	46%
Private sources	LE 15,645,152,758	68%	51%
Donors	LE 181,128,814	1%	3%
Total	LE 23,081,139,867	100%	100%

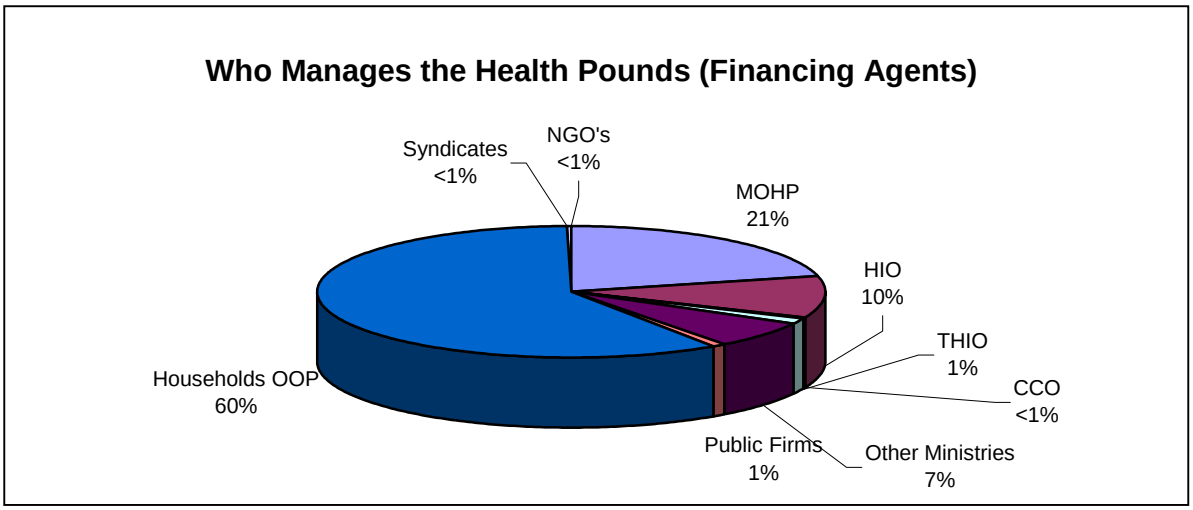
Figure ES-1: Sources of Health Care Funding in Egypt, 2002



Financing Agents

Financing agents have programmatic control over how money is spent, in other words, they are the entities that actually pay the providers for the health care services administered. As evident in Figure ES-2, households, the MOHP, and the HIO manage more than 90 percent of the health funds and how they are spent. Households, also the major source of financing care, manage their own money and directly pay the providers of their choice in the form of user fees or for drugs. The MOHP and HIO use their revenue (either Ministry of Finance) disbursements or self-funding) to pay their respective providers.

Figure ES-2: Distribution by Financing Agents



CCO=Curative care organizations, NGO=nongovernmental organization, THIO=teaching hospitals and institutes organization

Use of Health Care Resources

Expenditures on preventive and curative care

Public facilities provide the majority of preventive and curative care (Figure ES-3). The MOHP administers most preventive and public health programs, whereas the other public sector facilities, such as the HIO and teaching hospitals and institutes, provide primarily curative care.

Figure ES-3: Distribution of Expenditures by Facilities

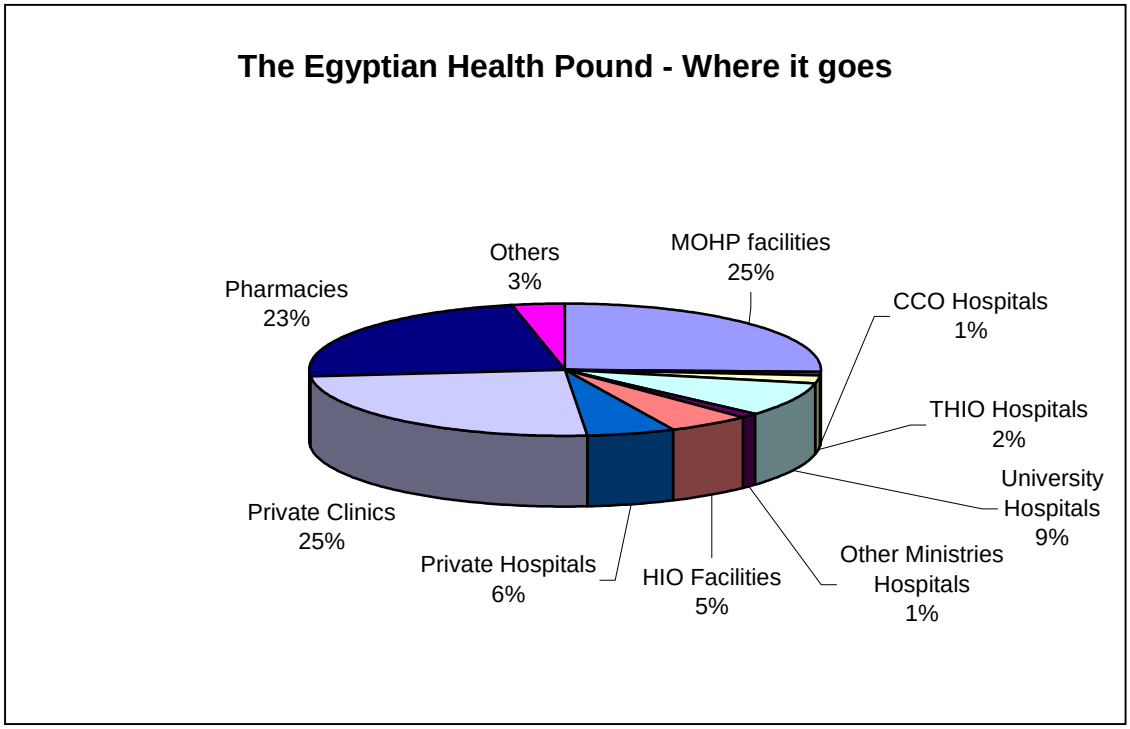


Table ES-3 shows that the overall distribution of care in public vis à vis private facilities has not changed significantly since 1994-95. The public facilities consumed 43 percent of expenditures in 2002 and 44 percent in 1994-95; private facilities account for 54 percent, nearly 4 percent more than in 1994-95.

Households spend most of their OOP expenditures (42 percent) seeking care at private clinics, followed by spending at independent/private pharmacies (34 percent). This represents a shift of spending from 1994-95, when most expenditure was made at pharmacies (63 percent of household expenditure). Care at MOHP facilities is either free or highly subsidized and, therefore, it is not surprising that only a very small proportion of OOP expenditures are made at MOHP facilities.

Table ES-3: Comparison of Expenditures by Type of Provider, 1994-95 and 2001-02

Expenditures, by Provider	2001-02	1994-95
MOHP facilities	25.6%	19%
CCO hospitals	0.7%	4%
THIO hospitals	1.9%	2%
University hospitals	8.6%	8%
Other ministries hospitals	1.0%	3%
HIO facilities	5.2%	8%
Total, public providers	**42.9%**	**44%**
Private hospitals	5.6%	4%
Private clinics	24.9%	10%
Pharmacies*	23.2%	36%
Total, private providers	**53.7%**	**50%**
Other facilities	3.3%	5%
TOTAL	**100%**	**100%**

* Independent pharmacies, including private and HIO pharmacies

Expenditures on pharmaceuticals

Overall expenditures on pharmaceuticals, including expenditures at health facilities and independent pharmacies, account for more than one-third (37 percent) of THE.[1] As seen in Table ES-4, appreciably more than half of the drugs (62 percent) are distributed through the private pharmacies. It is also worth noting that households spend LE 4.6 billion on drugs, which constitutes nearly 68 percent of their total OOP expenditures. Nearly one-third of total expenditures on drugs are incurred by the public sector, and the rest by the private sector.

Table ES-4: Pharmaceutical Expenditures, 2002

Summary	In LE	In US$	Percent
Total pharmaceutical expenditures	LE 8,584,524,962	US$ 1,866,201,079	
At retail pharmacies	LE 5,360,745,709	US$ 1,165,379,502	62%
At care at health facilities	LE 3,223,779,252	US$ 700,821,577	38%
THE	LE 23,081,139,867	US$ 5,017,639,101	
Private	LE 2,715,134,099	US$ 590,246,543	32%
Private (households)	LE 5,869,390,864	US$ 1,275,954,535	68%
Total pharmaceutical expenditures per capita	LE 129	US$ 27.99	--

[1] The total consumption of pharmaceuticals as calculated above differs from the estimates made by the MOHP Department of Planning and Finance (DOP), which showed total consumption at LE 6.2 billion, 28 percent lower than the study estimate. DOP estimates were based on local production and imports. Data on local production of drugs, imports, and exports obtained during the study were not conclusive to determine total consumption and therefore was not used in the study.

Policy Implications

NHA results show that Egypt is a below-average spender on health care compared to other countries in a similar socio-economic strata. The MOHP is working hard to improve the health care system as is evident by substantial increases in its expenditures since 1994-95. It also continues to invest increasingly in the "Family Health Model" approach and facilitating care at the primary level. However, the last two rounds of NHA show that many health care financing issues continue to exist – high household share of expenditures, high pharmaceutical expenditures, and continuing financial constraints of the HIO. In addition, the Family Health Fund, which is key to the Health Sector Reform Program, remains insolvent. Health financing remains fragmented, leading to inefficiencies and inequities. The following are some specific policy implications for Egypt:

1. Relieve excessive burden on households to pay for health care: improve equity and insurance coverage

Equity in health sector refers to narrowing differences in health status or access to services among different groups (socio-economic, ethnic, gender, or geographic groups). Where income inequities are the main focus, public funding of health should be pro-poor, and seek to redistribute income from rich to the poor. In this respect, the Egypt NHA highlights serious potential equity issues. Since the last round of NHA in 1994-95, it appears that households continue to incur the largest proportion of health care expenditures. Results for 2002 show an increase to 61.9 percent of THE being borne by households, up by 11 percentage points since 1994-95. Such a high proportion of expenditures by households raises the equity and access issues.

Despite the mandate of universal coverage, a majority (58 percent) of the uninsured seek outpatient care at private clinics. Although some may argue that this shows the uninsured are exercising free choice of provider and are choosing to pay the OOP expenditures, it may point to a real or perceived problem of quality of care at MOHP facilities. Such a large proportion of uninsured population seeking care at private clinics – where they incur OOP costs – also implies that the poorer segments of the uninsured populations bear a greater and possibly unfair financial burden compared to insured or wealthy insured.

More than one in five (23 percent) households have no health coverage at all. Given that insurance improves access to services, such a high proportion of uninsured contributes to inequity in access to care. The highest percentage of households with no health insurance coverage exists in the lowest wealth index; more than one-third (37 percent) of this socio-economic category is not covered by any insurance system.

2. Need for further decentralization in the Egypt health sector to improve efficiency

Increasingly, households are incurring a larger burden of the health care costs by seeking care at private facilities. Such a trend alludes to perceived or real gaps in quality of care, which could result from allocative and technical inefficiencies in the system. The highly centralized resource management and administrative structures at the MOHP that formulate policies and strategies for governing governorates are not the best suited to respond to local needs. The health directorates and health districts have only limited financial control and decision-making authority. They implement the central policies with little autonomy to mobilize resources or set local priorities.

The HSRP focuses on equity and efficiency. Achieving these goals hinges on making governorates and districts the units for change as well as building capacity at the central level. Some

decentralization has taken place at the MOHP, such as MOHP regional health authorities' expenditures of LE 2.7 billion as opposed to headquarters expenditures of LE 1.9 billion. Nevertheless, there is much room for improvement. A deliberate and overt effort to foster decentralization is necessary so that there will be a closer match between the elements of supply and demand; improvements in allocative and technical efficiency will result in efficient use of resources and prompt attendance to local needs. Decentralization also will enhance the health sector's ability to address community demands, reduce financial strain on households, and improve quality of care.

3. Decline in donor allocations for health in Egypt

Donor contributions since 1995 appear to have decreased. The NHA team suspects this finding may be an underestimation; however, other sources validate this trend. The Millennium Development Goals Report on Egypt (2004) reports that the country received about US$ 1.6 billion in total Official Development Assistance in 2001, but only 3 percent (US$ 48 million) was allocated for health.

4. Cost containment

In addition to the escalating health care costs, all public health services are highly subsidized with very little in the way of user fees at the point of service delivery. In order to improve the financial wellbeing of the health sector, the MOHP needs to identify potential areas to contain costs. Cost containment measures are likely to encounter several challenges, including the centralized budgeting and accounting systems that extend little authority and control to managers of public facilities to monitor expenditures.

5. Rationalization of expenditures

a. Capital expenditures

Capital investments by the MOHP have continued to increase rapidly, diverting much-needed resources from actual service delivery. In addition, there is a concern of not even having sufficient recurrent funding to maintain capital projects in operation. There is a need to develop guidelines for resource allocation based on justification and need, to develop indicators to measure actual allocation, and to use NHA to monitor resource flows in the future.

b. Pharmaceutical expenditures

Pharmaceutical expenditures continue to account for a large proportion (more than one-third) of total health care expenditures. One reason for this is a high level of imported pharmaceuticals and lack of comprehensive policy for using generic drugs substitutes. To effectively contain pharmaceutical costs, the government should implement policies that facilitate efficient importation and distribution of drugs, and improve its management and oversight of this sector. Heeding to this need, the MOHP is already in the process of finalizing policies and a procedures manual for drug logistics, with technical assistance from PHR*plus*.

c. Curative expenditures

Secondary and tertiary care facilities receive more investment allocations than do primary care facilities. Even though the public sector facilities are where most of the secondary and tertiary care is administered (MOHP et al. 2002), occupancy rates, particularly in MOHP facilities, do not exceed 40 percent (United National Development Programme 2004 [2002 data]). Clearly, this highlights the need for rationalizing expenditures for curative care.

1. Introduction

1.1 Development of Egypt's National Health Accounts

Since the early 1990s, the United States Agency for International Development (USAID) has supported the creation of a policy framework in Egypt that is based on empirical evidence. Various projects in the last decade, such as the Data for Decision Making, Partnerships for Health Reform, and now Partners for Health Reform*plus* (PHR*plus*), have provided technical assistance and built capacity at the Ministry of Health and Population (MOHP) to collect and analyze essential planning data. PHR*plus* is USAID's flagship health project and is designed to provide technical assistance to strengthen health systems. In Egypt, its focus is on quality improvement; health financing and insurance; implementing pilot health reform programs at the governorate level, and helping institute advocacy for health reform within the MOHP and the government of Egypt (GOE).

National Health Accounts (NHA) is an integral part of PHR*plus'* support to Egypt. Even though other types of costing and health expenditure studies have been carried out in Egypt, none have used the framework of NHA, which is designed to give a comprehensive description of resource flows in a health care system, tracking where resources come from and how they are used. These crucial data on financial expenditure can enhance health system performance by providing policymakers with reliable national- and subsystem-level information on sources and uses of funds for health; when studies are carried out in a standardized manner, the information is comparable over time and across countries, allowing additional understanding of health system performance.

Experience in the countries that have developed and used health accounts has shown that the accounts are very helpful in answering questions such as:

- How are resources mobilized and managed for the health system?
- Who pays and how much is paid for health care?
- Who provides goods and services, and what resources do they use?
- How are health care funds distributed across the different services, interventions and activities that the health system produces?
- Who benefits from health care expenditure?

Egypt was one of the first countries in the Middle East to undertake the NHA exercise. The first round of NHA was conducted in 1992-93 and provided health expenditure estimates for fiscal year (FY) 1991. The second round captured expenditures for FY 1995. The methodology used in 1995 built on the work carried out in the first round by enhancing the overall quality of data used and better triangulation techniques. The third and current round of NHA was launched in 2003 and estimates health care expenditures for the FY 2002. Since the second round, the NHA methodology has undergone considerable changes. Formal guidelines have been prescribed in the *Guide to producing*

national health accounts with special applications for low-income and middle-income countries (World Health Organization [WHO], World Bank and USAID 2003). Use of the Producer's Guide methodology ensures a systematic approach and consistency in the way expenditures are categorized which allows for international comparisons.

The objective of the Egypt NHA is to describe in a comprehensive manner the flow of all health expenditures in its health care system, including public, private, modern, and traditional methods. Higher birth rates, improvement in health care, and improved life expectancy attribute to the burgeoning population. A 2 percent population growth rate implies nearly 1.5 million additional people every year (World Bank 2005). Egypt now faces an alarming escalation in health care costs, which exacerbates the burden on the public sector, households, and the entire system. The changing population profile means that there is a greater need to evaluate its financial effect on the health system.

Some of the policy questions raised are:

1. Is Egypt spending a reasonable amount for health of its population?
2. Is this amount being spent efficiently and effectively?
3. Is there equity in health care for the various segments of the population?
4. Do all segments of the population access health care easily?
5. Does the distribution of expenditures between curative care, preventive care, and public health conform to the government's plans and objectives, such as "*health for all by the year 2000"*?

1.2 Organization of the Report

This report presents results of 2001-02 NHA. The next chapter presents background information. Chapter 3 discusses data and study methodology. Chapter 4 presents NHA findings for the national-level health system, and Chapter 5 health expenditures at the subsector level. The report concludes with Chapter 6, where policy implications of the NHA results are highlighted.

2. Background

2.1 Geography

Egypt, one of the oldest civilizations in the world, is located in the northeast corner of Africa. The Mediterranean and the Red Sea define its natural boundaries in the north and east respectively, and its immediate neighbors in the south and west are Sudan and Libya.

Estimates of Egypt's population vary between 66 and 68 million, depending on the source of data. Egypt is the most populous state in the Arab world. Vast stretches of arid desert results in nearly 90 percent of the population inhabiting a mere 5 percent of the land (MOHP et al. 2002): the majority of Egyptians live either in the Nile Delta located in the north of the country, or in the narrow Nile Valley south of Cairo. As for many centuries in the past, the Nile River continues to be the main artery for life in Egypt.

Administratively, Egypt is divided into 26 governorates. These governorates are classified into four main categories, depending on their location. Cairo, Alexandria, Port Said, and Suez are deemed *Urban Governorates*, with little rural population. The nine governorates that are located in the Nile Delta constitute the *Lower Egypt*, eight governorates in the Nile Valley form the *Upper Egypt*, and the remaining five governorates are called the *Frontier Governorates*, as they form the east and west borders of Egypt.

2.2 Socio-economic Indicators

Egypt is defined as a low middle-income country with a gross domestic product (GDP) per capita in 2003 amounting to US$ 1,210 (World Bank 2005). The economic situation in Egypt is heavily influenced by the political instability of the region as well as Egypt's development goals in the new millennium. In 1970s and 1980s, Egypt enjoyed rapid growth from the oil boom and the Suez Canal operation, in addition to the newly adopted open-market approach. However, more recently, a decline in the neighboring oil economies has impeded growth of the Egyptian economy. Unrest in the Middle East continues to affect the entire region in several ways, making political and economic stability tenuous.

Most recent World Bank estimates reveal that 17 percent of its 68.1 million population live below the poverty line in 2003 (World Bank 2005). For the year, GDP was estimated at US$82.4 billion. The economic growth rate has been a sluggish 3.2 percent since the start of this decade; combined with a 2 percent population growth rate, the rate of increase of GDP per capita has dwindled to 1.2 percent (World Bank 2005). Lack of substantial economic growth in turn limited the flow of foreign direct investment in Egypt.

In an attempt to restore fiscal balance and liberalize economic controls, the GOE proposed new privatization and customs reform measures in late 2003 and early 2004. However, the government is likely to pursue these initiatives cautiously and gradually to avoid a public backlash over potential

inflation or layoffs associated with these reforms. In order to relieve some of the monetary pressures on an overvalued Egyptian pound (LE), the government floated the currency in January 2003, which resulted in a sharp drop in its value and consequent inflationary pressure. The existence of a black market for hard currency is evidence that the government continues to influence the official exchange rate offered in the banks. In September 2003, Egyptian officials increased subsidies on basic food products, particularly to support the poor, but widening an already deep budget deficit. Egypt's balance-of-payments position was not hurt by the war in Iraq in 2003, as tourism and Suez Canal revenues fared well.

During the past three decades, Egypt has considerably improved the well-being of its people. In terms of social indicators, the education and health service provision for its population has dramatically improved. The proportion of households with access to piped water increased from 70 percent (1986) to 83 percent in 1996 (El-Zanaty and Way 2001). Advances in women's education are of particular note as female enrollment in primary schools rose from 57 percent to 91 percent in 1997. Even the secondary enrollment of female students is up to 70 percent (1997) (MOHP et al. 2002).

Despite these laudable improvements, significant gaps exist for a number of subgroups, particularly urban-rural and gender gaps. In addition, fighting poverty remains a substantial challenge. The urban-rural gap is very profound when it comes to access to basic sanitation facilities or levels of education. The gender gap is highlighted in terms of literacy and labor participation. Female literacy is only about two-thirds the male rate, and female participation in the labor forces is 18 percent of male participation (MOHP et al. 2002).

2.3 Health Indicators and Health Sector Profile

Egypt's demographic and epidemiological situation is typical of many developing countries undergoing health and economic transition. Increasingly the Egyptian health sector is having to treat expensive non-communicable diseases, while continuing to face a significant communicable-disease burden. The annual population growth has been brought down to 2 percent annually; still, Egypt's total population is expected to reach 92 million by 2020 (El-Zanaty and Way 2001).

2.3.1 Health Indicators

When compared to several of its neighbors that constitute the Middle East/North Africa regional average, Egypt fairs above average in most of its health indicators, except for life expectancy levels (see Table 2.1). In a span of 20 years, fertility rates in Egypt have dropped dramatically, from 5.3 births in 1980 to 3.5 in 2000. The most significant decline was in the 1980s, but it has since slowed down.

Table 2.1: Health Indicators for Egypt, 2002

Health indicator	Male	Female	Total population	Middle East/ North Africa regional average
Life expectancy at birth	65.3 years	69 years	67.1	69 years
Healthy life expectancy at birth	57.8 years	60.2 years	59 years	M: 68.2; F: 71.5
Child malnutrition (percent of children <5 yrs)	-	-	4%	14.6%
Child mortality (probability of dying <5 yrs)			41/1000	58/1000
Adult mortality (probability of dying 15-59 yrs)	240	157		
Maternal mortality ratio (per 100,000 live births) – (2000 estimates)		84		130
Total fertility rate	-	2.88	-	3.1
Immunization coverage (2003) (DPT3)	-	-	98	92

Sources:
www.who.int.org: Core Health Indicators 2002- Egypt
www.worldbank.org: Country at a glance 2002
World Bank: Health Nutrition and Population/Poverty Thematic Group – May 2000
U.N. Development Programme (UNDP): Human Development Report – 2003
U.N. Population Fund (UNFPA): State of the World Population – 2002
http://www.ifpri.org/2020/briefs/number64.htm
WHO, UNICEF and UNFPA estimates: Maternal Mortality in 2000 – 2004
UNICEF: Progress for Children: A Child Survival Report Card – 2004

2.3.2 Health Sector Profile

The design of the Egyptian health system draws from elements of the social systems of Eastern Europe and the former Soviet Union as well as the market-oriented models of health care financing and delivery found in the United States and other non-socialist countries. A key element of the Soviet-type system is the constitutional guarantee of free health care to all Egyptian citizens. As a result, physical access to health care is virtually universal. Nearly 95 percent of all Egyptians have a health facility within 5 kilometers (MOHP 2002). However, drawing upon two very distinct types of health care systems has resulted in Egypt in a very pluralistic system that is fragmented and uncoordinated.

2.3.2.1 Organization of the Health Sector

The organizational structure of the Egyptian health care system is very complex; health services are managed, financed, and provided by entities in all three subsectors of the economy – public, semi-public or parastatal, and private.

The government, or public, sector is characterized by entities that receive funding from the Ministry of Finance (MOF), which finances health care through general tax revenues. As in most socially oriented health care systems, the manager (financing agent) and provider of health care are often the same entities resulting in no separation of the payor and provider of services. The public providers in Egypt are the MOHP, Teaching Hospitals and Institutes Organization (THIO), and the Ministry of Higher Education (MOHE) and the university hospitals under it. Their main source of funding is the MOF, though they generate some revenue through user fees. The Health Insurance Organization (HIO) is the largest (public) health insurance program and has an extensive network of health facilities. It is organized into eight regional branches, supervised by a central headquarters in Cairo. The HIO is financed through co-payments and premiums from workers and pensioners collected through the Social Insurance Organization (SIO) and Pension Insurance Organization (PIO).

Parastatals are quasi-governmental entities. Most are managed by their own set of rules and regulations, and they have separate revenues and independence over their daily operations, but the government sets their mandate. Examples of parastatals are Egypt Air, Arab Steel, Arab Contractors, and the National Electric Co. They contract with both private or government facilities to provide health care for their employees.

Everything that falls outside the realm of public and parastatal sectors is considered to be private. This sector includes traditional healers, midwives, nongovernmental organizations (NGOs), mosque and church clinics, and private practitioners. Some of the religiously affiliated clinics are funded through the Ministry of Social Affairs (MOSA). NGO providers are termed domestic or international, depending on whether they receive funding from domestic charitable organizations or international donors. (However, most donor funding for health in Egypt is channeled through the MOHP.) The private insurance sector is not well developed in Egypt, and therefore care at private sector facilities is largely financed through out-of-pocket (OOP) contributions of the households.

In addition to these three sectors are advisory councils that influence health policies. The three main such councils or committees are the Health Committee of the People's Assembly, Health Committee of the Shura Council, and Supreme Council for Health.

2.3.2.2 Epidemiological Transition

Egypt is undergoing an epidemiological transition, that is, it is moving from a predominance of infectious and parasitic diseases common in developing countries, to one where accidents/injuries and chronic diseases/conditions related to development and modernization, particularly cardiovascular in nature (hypertension, obesity, etc.), are becoming the leading causes of mortality.

There also continues a pressing demand to reduce the population growth rate. In addition, Egypt has a long-term goal of improving maternal and child health (MCH), and immunization and vaccination.

2.3.2.3 Health Care Utilization

Egypt has invested heavily in building an extensive physical infrastructure of clinics and hospitals, as well as human resources, particularly physicians. Therefore, physical access to health facilities is not a major issue for most Egyptians, and, as mentioned earlier, all Egyptians theoretically are assured health care either through the HIO or MOHP.

The 2002 Egyptian National Household Health Utilization and Expenditure Survey (ENHHEUS) estimated the average number of outpatient visits per capita at 3.70 per year, and the hospital admissions rate at 0.89 per capita (MOHP et al. 2002: Chapter 6, Pattern of Curative Health Care Services Utilization in Egypt). Nearly 55 percent of the outpatient visits take place in the private sector, while 84 percent of all inpatient visits are at a public facility – MOHP, HIO, teaching hospitals, etc. The utilization pattern of the outpatient and inpatient services varies according to the prevalence of morbidity and accessibility to health facilities. Urban governorates reported the highest hospital admission rate. Of the 36 percent of household respondents who reported having an acute attack of illness, only 26 percent sought outpatient care. This proportion drops even further for those who suffer from chronic conditions. Approximately 20 percent admitted to suffering from chronic conditions, but only 17 percent sought outpatient care. Nearly 76 percent of households are covered by health insurance, but only 6 percent of them utilized the health insurance facilities.

2.3.2.4 Health Care Infrastructure

Primary, secondary, and tertiary health care in Egypt is provided through an extensive network of public sector hospitals and rural health centers and private hospitals (MOHP 2003). The formal public health sector consists of more than 1,250 public hospitals with 116,125 beds, and 2,912 rural health centers. The formal private health sector consists of 1,200 hospitals with 23,500 beds and a large number of medical professionals in private practice.

The health system employs a large number of medical professionals: physicians (58,969), dentists (7,667), pharmacists (4,640), nurses (2,403), biologists (1,582), and medical assistants (9,367). The total number of public and private medical practitioners is estimated at 148,150, with more than 10,000 unemployed physicians in 2002.

There are 401 registered NGOs in the health sector, most in urban areas, especially Cairo. They provide general medical services but refer their patients for inpatient services to the public hospitals. Consultation fees for private health services range between US$ 2 to US$ 30 (this does not include medication and other treatment costs). Most often individuals pay these fees directly out of pocket.

Table 2.2 presents an overview of the Egyptian health sector in terms of health services coverage, sources of financing, prevailing provider-payer relationships, and the size of operations of each of the health care subsystems.

Table 2.2: Overview of the Egyptian Health Sector

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
Describes types of services and benefits available.	Describes coverage and eligibility criteria, special programs for specific population groups	Describes main sources of financing	Describes relationship between financing and service delivery functions	No. of people covered or eligible by health system nation wide	As indicated by staff, beds, or number of facilities
Government (Public) Sector					
Ministry of Health and Population (MOHP)					
Provides comprehensive public health services and primary, preventive, and curative care services through its facilities	All citizens and residents Highly subsidized care services for the entire population	Ministry of Finance (MOF) (general tax revenues) Household spending (out-of-pocket [OOP]) Donors (through grants and loan for vertical programs)	Primary and secondary services treatment as well tertiary treatment provided by the MOHP – financed through budget derived from general revenue (tax) and donations from donors 80% of services provided by MOHP; providers are free and 20% paid.	All Egyptian citizens are eligible	Operates: 267 urban health care centers: 77 in Cairo, 9 in Alexandria, and 181 in other governorates. 3595 health care centers: a- 77 health centers for chest b- 371 rural integrated centers c- 272 rural health groups d- 2175 rural health units 239 MOHP general and district hospitals: 28 in Urban Governorates, 559 in Lower Egypt, 74 in Upper Egypt, and 26 in Frontier Governorates. Total of 922 general hospitals and 209 specialized hospitals Total number of MOHP beds is 80,519
Teaching Hospitals and Institutes Organizations (THIO)					
THIO is a separate body under the authority of the Minister of Health THIO covers a small group of population	Coverage: MOHP patients HIO patients. Private firms. private patients	MOF MOHP (through contract) HIO (through contract) Private firms (through contract) International donors (through grants and loan) Household spending (OOP)	Primary and secondary services treatment as well tertiary treatment 50% of services provided by THIO providers are free and 50% paid.	Serve only small proportion of population	Runs 9 general teaching hospitals and 10 research institutes located mostly in Cairo (10 in Cairo, 4 in Giza and 5 in other governorates). Operates: Facilities accounted for a total of 19 hospitals for 5,404 beds

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
Health Insurance Organization (HIO)					
HIO is an independent government organization under the authority of the Minister of Health	Provides compulsory insurance to workers in the formal sector. Coverage extended to 5 major groups of beneficiaries: Law 32: Government employees Law 79: Government, public and private employees Widows and pensioners Labor accident compensation School children and students (under 18 yrs) Newborns	Principally funded through a system of premiums and co-payments (household spending) Premium collection through: SIO: Mandated premium collected by the Social Insurance Organization PIO: premium collected from pensioners (Pensions and Insurance Organization) MOF occassionaly covers operating losses.	Contracted providers include MOHP, the Curative Care Organizations, and private providers.	28.8 million are covered in 2001-02. Approximately 50% of the total population of Egypt in 2001-02 registered for the scheme. This excludes those citizens over 65years who did not register	Organized into 8 regional branches supervised by headquarters in Cairo. Runs a network of hospitals, clinics, and pharmacies across the country: 40 HIO hospitals: 14 in Urban Governorates, 17 in Lower Egypt, and 9 in Upper Egypt. 61 injury centers 7,137 clinics (inside schools) 246 clinics (outside schools) 1,429 clinics for employees 452 pharmacies in addition to contracted pharmacies Operates: Facilities with a total of 8,644 beds. Employed 6,748 full-time physicians, 1,482 dentists, 681 nurses and 1,217 pharmacists
Curative Care Organizations (CCO)					
CCO comprises 6 independent autonomous organizations providing health care services under the authority of the Minister of Health	Coverage: HIO patients MOHP patients (agreed to give a number of beds for MOH and paid a lump sum.) Public & private firms' patients Households	CCO sources of financing are: MOF self financing for recurrent costs HIO (revenue by providing services - contract) MOHP (revenue by providing services - contract) Public firms (revenue by providing services - contract) Households (revenue by providing services to household)	Contracts services to HIO, MOHP, and companies Provides services to private households Free emergency services for poor under arrangement with GOE (for this they receive grants from MOHP budget) 20% of services provided by THIO providers are free.	100% cost recovery, no subsidies from government Only urban patients	Runs 11 CCO hospitals: 10 in Urban Governorates and 1 in Lower Egypt. Facilities accounted for a total of 2129 beds.

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
University Hospitals					
Provides facilities for teaching and research Autonomous facilities affiliated to individual universities and falling under the responsibility of the Ministry of Higher Education (MOHE)	Provides high-quality care mostly in Cairo area and generates significant resources through user fees 70% of the coverage is for medical faculty and students and 30% for private households.	MOF through MOHE budget User fees paid directly by households	Primary, secondary, and tertiary treatment	University hospitals are used predominately by the non-poor population	Operates: 53 hospitals in Egypt: 31 in Urban Governorates, 20 in Lower Egypt, and 2 in Upper Egypt. Facilities accounted for 20,790 beds
Other Ministries					
Ministry of Interior provides free health and medical care for police and prisoners. Ministry of Transport provides services for railway employees. Ministry of Defense provides services for the armed forces as well as for local civilians.	Main insurers must be a police or prisoner. Main insurers must be a railway employees Separate scheme for the armed forces. Every primary and secondary treatment (outpatient and inpatient including medicinations) covered under this fund	GOE via MOF (general tax revenues) Households	Primary, secondary, and tertiary treatment	Interior security forces and their families Railway employees and their families Armed forces and their families	No data available for police hospital. 3 railway hospitals running 351 beds It is not possible to ascertain actual number of hospitals, beds, or doctors employed in the armed forces. But more than 10% of Egyptian physicians were assumed to working in the armed forces. Others operate: 19 other hospitals with 1,888 beds
Nongovernmental Organizations (NGOs)					
NGOs mostly provide health-related programs; in some cases they provide primary health care medicine and first aid kits to urban and rural organizations to raise public awareness and public health care	All citizens provided that an application proposal has been lodged through a NGO; sometimes religious organization providing proof that they have the capacity to carry out such activities	Mainly from international NGOs, donors, and donations from large employers, corporations, and companies locally as well as fundraising organized by NGOs. All fundraising activities must be approved.	Primary health care activities and first aid kits mainly through grants and donations from international NGOs	Specific target audience benefits from these programs	The NGO sector as a whole is very tightly regulated by the GOE under law 32. MOSA does have a system to register NGOs but only small proportion of NGOs is registered. Facilities accounted for a total of 401 NGOs

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
All NGOs require official approval to operate from MOSA					
Foreign Donors					
International aid paid to government and government employees as population and capital investments. It falls under the authority of the Ministry of International Cooperation	Everyone is covered through these programs. Egypt's health sector and donor-supported projects.	Mainly from external governments and organizations	Funds primary health care programs and secondary health services. Much of the aid and vertical programs are in the form of non-economic assistance and not transferred to the social sectors.	Specific target audience benefits from these programs	Difficulties in compiling information. Foreign donors believed to be insignificant. Multilateral donors: mainly WHO, World Bank, UNFPA, UNICEF, UNDP, African Development Bank, Social Fund for Development Bilateral donors: mainly USAID, Finland, Holland, and European Union
Private Sector					
Private Insurance					
Private or voluntary health insurance is small. Only three private insurance offered health and are all government-owned parastatals. Many companies make their own arrangements to provide medical care to their employees	All citizens are eligible to use this insurance provided they can afford the price	Mainly household OOP spending and employers	Primary and secondary treatment (drugs, outpatient, and inpatient)	All citizens (100%) have a choice to access services provided that they can meet the associated cost.	Private insurance companies contract services to public and private providers.
Occupational Syndicates					
Several groups of professionals and workers organized into occupational association (syndicate). Major syndicates are: medical commercial agricultural engineering	All member of associations and family are eligible to use services provided by relevant syndicate. Membership is voluntary and is increasing very quickly.	Member of each syndicate and dependants.	Drugs, outpatient and inpatient care	All employees or professional and his dependant member of the syndicate can access these services	All syndicates contract services to public and private providers

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
Private Hospitals and Pharmacies					
Owned by individual and are operating in the private sector	All citizens are eligible to use services. Costs of drugs is expensive compared to public pharmacies.	Mainly household OOP spending	Hospital care, medicine and drugs	All citizens (100%) can access these services offered provided they can afford to meet the costs	Operates: 1,202 private hospitals: 504 in Urban Governorates, 348 in Lower Egypt, 337 in Upper Egypt, and 13 in Frontier Governorates Facilities have 23,494 beds
Household (OOP)					
Spending by people on health services provided by health providers for them	All citizens	Mainly from their disposable income	Pay for primary, secondary, and tertiary care	All citizens	

2.4 Health Sector Reform

The GOE has articulated as its long-term goal the achievement of universal coverage of basic health services for all its citizens. One of the priority objectives is to target vulnerable population groups. In 1997, the MOHP developed a comprehensive Health Sector Reform Program (HSRP) that has been supported by several development partners, including the World Bank, USAID, and the European Commission. The objective of the HSRP is to develop a national health system, based on social insurance, that will address existing problems in equity, access, efficiency, quality, and financial sustainability of the health care system based on improved integration of the public health sectors and provide improved quality and affordable services. The comprehensive and the complex nature of the reform dictated a phased approach: Full implementation of the HSRP will take 15-20 years. The pilot phase was implemented in 1997-2002. The focus of this phase was on primary health care delivery and financing of health care.

Key health sector values and approaches that guide health policy reform are:

- Support primary health care and health promotion
- Improve access according to health need
- Make more equitable and sustainable health financing systems
- Improve integration and collaboration within the Egypt health system.

The MOHP's Sector for Technical Support and Projects is currently leading policy development and implementation for health sector reforms in Egypt. Specific steps undertaken to implement the objectives of Phase 1 of HSRP are:

- Update the health insurance benefits package and HIO scheme;

- Restructure financing to achieve sustainability and equity through the creation of separate financing and purchasing organizations;

- Reorganize coverage and service delivery at the MOHP level as well as other financing agents, to obtain greater efficiency and quality; and

- Strengthen existing organizational structures.

The HSRP proposed an integrated package of strategies addressing the ways in which health care is financed, delivered, and organized, and managed.

In the area of *health care financing*, the "family" would become the basic unit for expanding SHI coverage. An affordable and cost-effective package of basic health services based on the priority health needs of the population will be provided. Sustainable financing of the health services package is ensured by channeling all sources of funding – private and public – in the National Health Insurance Fund (NHIF). The significant OOP expenditures would be reorganized in a manner that promotes risk sharing and equity.

In the area of *service delivery*, public and private providers would become integrated into one network of accredited family practice providers centered on the holistic "family health" approach. The District Management Approach for the service provision management decentralized facilities into three types – family health unit, the family health center, and district hospital – to provide the basic package. A referral system for the three types of family health facilities and for higher-level, specialized health care will be developed, with the family physician acting as a gatekeeper to the system. Provision of the basic benefits package would be based upon competition and choice among the different public and private service providers under the single NHIF, using incentive-based provider payment mechanisms.

In the area of *organization and management*, there will be created organizational structures, effective management systems, competent capabilities, regulatory framework, and institutional relationships that affect the reform of the health sector. The MOHP role will be strengthened in strategic planning and overall coordination of the health sector with an emphasis on decentralization.

Given the HSRP's emphasis on health financing, accurate and reliable overall financing information from the NHA is an essential input for strengthening policies to improve the functioning of the system, and provide a viable and sustainable health financing mechanism. Implementing the NHA activity will build capacity to collect strategic information for evidenced-based planning.

3. Data and Methodology

3.1 Implementation of the NHA Exercise

The NHA activity is housed at the MOHP Department of Planning and Finance (DOP). The NHA team members come from that department and from the Sector for Technical Support and Projects. The technical assistance is provided by the USAID-funded PHR*plus* project. The aim of this round of NHA is to support and guide the health reform process by estimating total national health expenditures.

As it is not possible to cogently list every single assumption underlying all the calculations in this report, interested readers can contact the MOHP DOP for the NHA spreadsheets in Microsoft Excel which have detailed notes on all the calculations.

3.2 Classification of Expenditures

To estimate health care expenditures in Egypt for FY 2001-02, this study used the methodology prescribed in the aforementioned Producer's Guide (WHO, World Bank, and USAID 2003). The methodology ensures a systematic approach and consistency in the way expenditures are categorized, which allows for international comparisons. The classifications determine how expenditures are grouped in the NHA.

Generally speaking, there are various ways of categorizing service delivery. The Egypt MOHP looks at delivery of care in terms of levels of care, i.e. primary, secondary, and tertiary care. However, to preserve international comparability and consistency with the NHA framework, expenditures for delivery of care are categorized here in accordance with the Producer's Guide classification scheme, itself an extension of the International Classification of Health Accounts (ICHA) found in *A System of Health Accounts* (SHA) (Organization for Economic Cooperation and Development [OECD] 2000). Rather than distinguishing between levels of care, the NHA distinguishes between personal, or "curative" medical care and programmatic expenditures or "prevention and public health."

Curative care as used by NHA refers to care "in which the principal medical intent is to relieve symptoms of illness or injury, to reduce the severity of an illness or injury or to protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal function" (OECD 2000). The classification 'HC.1.1 Inpatient curative care' includes expenses incurred in an overnight stay at a provider such as a hospital (both general and specialty) or 'other institution providing inpatient care.' 'HC.1.3 Outpatient curative care' comprises mainly services delivered to outpatients by physicians in establishments of the ambulatory health care industry. Outpatients may also be treated in establishments of the hospital industry, for example in specialized outpatient wards and in community or other integrated care facilities (OECD 2000). It includes costs incurred on an outpatient basis and 'is not formally admitted to the facility (physician's private office, hospital outpatient centre or ambulatory-care centre) and does not stay overnight.' Both inpatient and outpatient curative care includes expenditures for health care provided at the any

level of the health system. What is typically considered to be administrative costs at the facility level, such as salaries, laboratory, and x-rays, are distributed proportionally between inpatient and outpatient care. Drug costs incurred at a hospital or other health facility are also distributed across the share of inpatient and outpatient spending. The combination of inpatient and outpatient expenditures makes up the total of curative care.

Section 5 of this report, 'Expenditures at Subsystems Level,' provides both a breakdown according to NHA standards and to GOE categories. These categories were an additional calculation done 'outside' of the main NHA tables.

It is also important to note the distinction between the MOHP definition of "prevention" and the NHA classification of "prevention and public health." The MOHP characterizes preventive care as services to prevent illness and disease. The NHA definition of prevention under the classification 'HC.6 Prevention and public health,' is refers to 'programmatic' expenditures on prevention and public health and does not include preventive services delivered as part of outpatient care. According to the Producer's Guide (and OECD SHA) prevention and public health includes are 'designed to enhance the health status of the population as distinct from the curative services, which repair health dysfunction. Typical services are vaccination campaigns and programmes.'

In this study, 'HC.5.1 Pharmaceuticals and other medical non-durables' includes all expenditures incurred at pharmacies and outlets that are autonomous from hospitals and health centers, again in accordance to the Producer's Guide. To be consistent with this definition, the Egypt NHA includes those expenditures incurred at private pharmacies and HIO pharmacies. The main source of such expenditures is household OOP payments for 'drugs, HIO and public firms.' HIO expenditures are captured under HC.5.1 because the HIO operates independent pharmacies and also contracts through private providers. Again, per the Producer's Guide, drug expenditures incurred as part of inpatient or outpatient care are included within those functions (HC.1.1 Inpatient Curative Care and HC.1.3 Outpatient Curative Care) and are not separated within the 'pharmaceutical and other medical non-durables' classification. The classification HC.5.1 strictly captures pharmaceuticals at retail pharmacies outside of a health facility. At the provider level 'HP 4.1 Pharmacies" refers to those independent pharmacies (private and HIO) and excludes pharmacies/dispensaries that are embedded within hospitals and health centers. Further discussion is presented on overall pharmaceutical spending in Section 5.5.

Administration expenditures under HC.7 is defined as 'health administration and health insurance are activities of private insurers and central and local authorities, and social security. Included are the planning, management, regulation, and collection of funds and handling of claims of the delivery system.' In the Egypt NHA estimation, this category includes only administration occurring at the central level and not administration at facilities (which is included within the curative care expenditure).

Capital formation 'comprises gross capital formation of domestic health care provider institutions excluding those listed under HP.4 Retail sale and other providers of medical goods.' This principally includes spending on items such as the construction of buildings and equipment for health providers. For the Egypt NHA matrices, Bab III expenditures (which include investment and capital) are included under capital formation.

The classification, 'not specified by any kind (nsk)' are those expenditures that cannot be classified under any particular classification or the expenditure is too small (less than 2 percent of THE) to disaggregate.

3.3 Data Collection

A variety of data sources was used for the computation of the 2001-02 NHA tables. Secondary data sources were financial records of the MOHP, HIO, and other public agencies. The 2002 ENHHEUS (MOHP et al. 2002) was used to estimate the household expenditures.

With respect to the household estimates, it should be noted that there was a slight departure in methodology in comparison to the 1994-95 NHA estimation. The 1994-95 estimates relied on the 1994 ENHHEUS, which showed total OOP expenditures as LE 98.3. In that exercise, the 1994 household survey findings were then adjusted because they were thought to have overestimated spending on drugs based on information obtained from domestic production, imports, and exports. The current round of NHA did not make such adjustments to the 2002 ENHHEUS findings because the data from domestic production, exports, and imports exceeded total public and private expenditures (from the 2002 ENHHEUS). Additional information can be found in section '4.2.1 Households.'

Primary data collection was planned in the form of surveys targeting donors and NGOs. However, despite efforts to survey the 20 top donors to the Egyptian health sector, the response rate was zero. Therefore the NHA team had to rely instead on secondary data from the MOHP and the NGO survey to estimate the total donor contribution. Moreover, time and budgetary constraints limited the NGO survey to 50 of the total 401 NGOs that provide health care. The health care costs associated with these largest 50 NGOs was estimated and extrapolated for the entire country, but these estimates are approximate and should be viewed as such.

It should also be noted that PHR*plus* was informed that it was not possible to obtain data from the Ministries of Defense and Interior despite several inquires; suggested proxy techniques were not approved to estimate these institutions' expenditures. Therefore, THE should be viewed with this qualification in mind.

3.4 Period of Estimation for the NHA Tables

An accrual method of accounting in which expenditures attributed to the specific time period of July 2001-June 2002 was used to estimate THE.

3.5 Prices and Currencies

All figures are listed in Egyptian pounds. Where foreign currencies were involved (particularly donor figures), they have been converted into LE using International Monetary Fund-published average market exchange rate for the relevant calendar year (LE 4.6 = 1 US$). Health expenditures are estimated in nominal terms; wherever possible they have been converted to real terms.

4. National Health Accounts Results

The government of Egypt is implementing health sector reforms that will have significant impact on the structure of the Egyptian health care system, and the roles, functions, and relationships of key health stakeholders. These reforms will affect the provision, access to, financing, and regulation of health services. Thus the Ministry of Health and Population, with the help of its partners and donors, has undertaken research and studies to better understand the composition of the health care system: Who are the main players? What are their roles in the health system? What resources are available to the health sector? How these resources are being utilized? By tracing the flow of health spending and resource allocation throughout the health sector, the NHA results will and help answer these questions.

4.1 Main Findings

Total health care expenditures in Egypt for 2001-02 amount to approximately LE 23 billion. This represents nearly 6 percent of Egypt's GDP going to health care, up from 3.7 percent in 1994-95. Some of the growth in THE can be attributed to the escalation of health care costs and increased demand for private sector services. A large proportion of the costs is financed by households – 68 percent is contributed by the private sector, particularly households, whereas 31 percent originate from public sources, and less than one percent by international donors.

Tables 4.1a–4.1c highlight the key findings of the 2001-02 NHA.

Table 4.1a: Summary Findings. All values are expressed in nominal terms

	2001-2002 (in LE)	2001-2002 (in US$)	1994-95
Total population	66,668,346		59,181,102
GDP estimates for Egypt	LE 385,020,000,000	US$ 83,700,000,000	LE 203,135,140,000
Total health expenditure (THE)	LE 23,081,139,867	US$ 5,017,639,101	LE 7,516,000,000
THE per capita	LE 346.21	US$ 75.26	LE 127/US$ 38
Percent GDP spent on health	6.0%		3.7 %
THE as percent government budget	18.3%		
MOH expenditures as percent govt budget	4.4%		
Pharmaceutical exp. as percent of THE	37.2%		
Public expenditure on drugs	32%		
Private expenditure on drugs	68%		
GDP per capita	LE 5,775	US$ 1,255	
Gov expenditure per capita	LE 1,890	US$ 411	
Pharmaceutical expenditures	LE 8,584,524,962	US$ 1,866,201,079	
Pharmaceutical expenditures per capita	LE 129	US$ 27.99	
Total government budget	LE 126,000,000,000	US$ 27,391,304,348	
Average exchange rate (2001-2002)	LE 4.60 = 1 US$		

Sources: MOHP DOP for population estimates, International Monetary Fund website for exchange rate

Table 4.1b: Distribution of Sources of Funds

	2001-02 (in LE)	2001-02 (%)	1994-95 (%)
Public sources	LE 7,254,858,295	31%	46%
Private sources	LE 15,645,152,758	68%	51%
Donor	LE 181,128,814	1%	3%

Table 4.1c: Distribution of Health Care Expenditures

	2001-02 (in LE)	2001-02 (%)	1994-95 (%)
Public facilities	LE 8,841,016,396	40%	44%
Private facilities	LE 12,406,075,389	56%	50%
Other	LE 765,462,101	3%	5%

Within the public sector, MOHP facilities incurred nearly 26 percent of overall health expenditures while private clinics were a large source for care in the private sector. Private pharmacies[2] provided drugs for 23 percent of the population.

Table 4.2: Expenditures by Type of Providers

Expenditures by Providers	2001-02
MOHP facilities	25.6%
CCO hospitals	0.7%
THIO hospitals	1.9%
University hospitals	8.6%
Other ministries' hospitals	1.0%
HIO facilities	5.2%
Total public facilities	42.9%
Private hospitals	5.6%
Private clinics	24.9%
Pharmacies	23.2%
Total private facilities	53.7%
Other facilities	3.3%
TOTAL	LE 23,081,139,867

Table 4.3 shows that spending on inpatient and outpatient[3] curative care (57 percent) made up more than half of all expenditures. Almost a quarter of THE went to pharmaceuticals (23 percent).

[2] Including private and HIO pharmacies.
[3] It should be noted that outpatient care may include preventive services delivered as part of an outpatient visit.

Table 4.3: Expenditures by Functions

Health Care Functions	Amount	Percent
Curative care	13,195,605,498	57%
Prevention and public health	2,081,189,303	9%
MCH	219,843,466	1%
Pharmaceuticals	5,360,745,709	23%
Administration	993,774,536	4%
Capital formation	1,074,578,120	5%
Not specified by any kind	155,404,235	1%
Total	23,081,139,868	

4.2 Flow of Funds

The Egypt NHA (ENHA) is concerned primarily with capturing the flow of resources between institutional and economic entities. There are multiple financing sources that transfer funds to each financing agent; the financing agent in turn compensates the provider for the services it renders to patients. Financing agents are those entities that have programmatic control over the funds and therefore are the payers of the health care services. In the case of Egypt, except households, most of the financing agents are public entities, such as the MOHP, HIO, etc. that own and operate health facilities. Such a setup has some inherent problems, as there is no distinction between payers and provider of services.

Egypt has several different financing mechanisms to pay for health care. These include:

- Health Insurance - Employment-based social insurance schemes HIO
- Different schemes to cover the armed and security forces
- The MOHP financing that covers all Egyptian citizens irrespective of their income levels
- A growing private insurance market
- A special scheme that covers member of professional syndicates
- Other ministries that cover their employees
- OOP expenditures

Tables 4.4, 4.5, and 4.6 are the main NHA matrices. They show how funds flow from financing sources to financing agents to providers for various health functions.

Table 4.4: Sources of Funds to Financing Agents 2001-02 (All figures in LE)

Egypt National Health Accounts 2001-2002

Sources to Financing Agents 2001-02

		FS.1 Public Funds			FS.2 Private Funds			FS.3 Rest of the World	
		Territorial Government Funds FS.1.1							
		Central Govt. Revenue (FS.1.1.1)							
		MOF (excluding loans) (FS.1.1.1.1)	Bilateral Loan to MOF (FS.1.1.1.2)	Public Firms Funds (FS.2.1.1)	Private Employer Funds (FS.2.1.2)	Household funds (FS.2.2)	Non profit Institutions Serving Households (Zakat) (FS 2.3)	Donors Funds-Grants (FS.3.1)	TOTAL
HF.1	Public Sector - Government of Egypt								
HF.1.1	Territorial Government								
HF.1.1.1	Central Government								
HF.1.1.1.1	Ministry of Health & Population								
HF.1.1.1.1.1	*MOHP (Head quarter)*	1,945,998,724	18,685,706	6,102,000				164,330,000	**2,135,116,430**
HF.1.1.1.1.2	*Regional Health Authorities*	2,762,169,154							**2,762,169,154**
HF.1.1.1.1.3	*CCO*	8,986,794	6,909,751	13,897,259	58,540,917				**88,334,720**
HF.1.1.1.1.4	*THIO*	197,177,270	5,105,849	55,949,058	43,959,974				**302,192,150**
HF.1.1.1.2	Ministry of Higher Education (University Hospitals)	1,144,002,620		104,768,198	244,459,128				**1,493,229,946**
HF.1.1.1.3	Ministry of Al AOKAF		8,250,000	8,547,121	20,638,432		7,808,398		**45,243,951**
HF.1.1.1.4	Ministry of Electricity			8,494,752					**8,494,752**
HF.1.1.1.5	Ministry of Social Affairs	276,690							**276,690**
HF 1.1.1.6	*HIO*	514,146,806		356,593,794	949,610,580	525,996,676	10,073,900		**2,356,421,756**
HF 2.5.1	Public Firms		5,750,554	83,046,196		78,238,922			**167,035,672**
									-
HF.2	Private Sector								
HF 2.1.2	Syndicates								-
HF.2.1.2.1	*Medical*				8,237,777	12,182,916			**20,420,693**
HF.2.1.2.2	*Agriculture*				1,219,700	705,500			**1,925,200**
HF.2.1.2.3	*Commercial*				354,299	486,848			**841,146**
HF.2.1.2.4	*Engineering*				6,000,000	16,294,697			**22,294,697**
HF.2.3	Private Households' out of pocket					13,660,344,095			**13,660,344,095**
HF.2.4	Non-Governmental Organization							**16,798,814**	**16,798,814**
	TOTAL (THE)	**6,572,758,058**	**44,701,859**	**637,398,378**	**1,333,020,805**	**14,294,249,654**	**17,882,298**	**181,128,814**	**23,081,139,867**
	Financing agents of health related functions	*84,118,584.72*	*2,178,226.48*	*23,868,651.45*	*18,753,940.36*				*128,919,403.00*
	TOTAL (NHE)	6,656,876,642	46,880,086	661,267,029	1,351,774,746	14,294,249,654	17,882,298	181,128,814	23,210,059,270

Table 4.5: Financing AGENTS to PROVIDERS, 2001-02, in LE

Egypt National Health Accounts 2001-2002

Financing Agents to Providers 2001-02

		MOHP Head Quarter HF.1.1.1.1.1	MOHP Regional H Authority HF.1.1.1.1.2	CCO HF.1.1.1.1.3	THIO HF.1.1.1.1.4	Min of Higher Education HF.1.1.1.2	Min of Aokaf HF.1.1.1.3	Min of Electricity HF.1.1.1.4	Min of Social Affairs HF.1.1.1.5	H.I.O. HF.1.1.1.6	Public Firms HF.2.5.1	Syndicates HF.2.5.2	Households HF.2.3	NGOs HF.2.4	Total	
HP.1.1	General Hospitals															
HP.1.1.1	Public Hospitals															
HP.1.1.1.1	MOHP Hospitals	678,366,805	847,154,185							210,840,719			481,157,369		2,217,519,079	
HP.1.1.1.2	CCO Hospitals	9,964,000	18,877,000	88,334,720						21,584,654			27,012,813		165,773,188	079
HP.1.1.1.3	THIO Hospitals	21,351,000	32,798,000		302,192,150					36,792,400			44,735,370		437,868,920	188
HP.1.1.1.4	University Hospitals	18,502,000	42,711,000			1,493,229,946							420,177,651		1,974,620,597	920
HP.1.1.1.5	Other Ministries Hospitals	3,624,000	6,865,000				45,243,951	8,494,752		511,777	101,392,561		56,151,488		222,283,529	597
HP.1.1.1.6	HIO Hospitals	2,622,000	1,716,000							1,058,174,628			103,110,896		1,165,623,524	529
HP.1.1.2	Private Hospitals								39,978	35,721,732		37,874,369	1,224,202,433		1,297,838,512	524
HP.1.1.3	Overseas Hospitals - (Treatment Abroad)								236,712	601,429					838,141	512
HP.3.1	Office of Physician (Private Clinics)											7,607,368	5,722,246,844	16,798,814	5,746,653,026	141
HP.3.4.5.1	MOHP Health Centers	939,172,772	1,214,994,192							33,914,674			437,619,662		2,625,701,300	026
HP.3.4.5.2	HIO Health Centers									31,626,260					31,626,260	300
HP.4.1	Pharmacies									701,653,559	65,643,111		4,593,449,039		5,360,745,709	260
HP.6	Administration	399,573,990	516,923,075							152,088,918					1,068,585,983	709
HP.nsk	Others	61,939,863	80,130,702							72,911,006			550,480,529		765,462,101	983
	Total (THE)	2,135,116,430	2,762,169,154	88,334,720	302,192,150	1,493,229,946	45,243,951	8,494,752	276,690	2,356,421,756	167,035,672	45,481,737	13,660,344,095	16,798,814	23,081,139,869	101
HP.8.1	Research Institutions	4,897,285,584			76,920,164										4,974,205,748	869
HP.8.2	Education and training institutions				51,999,239										51,999,239	748
	Total (NHE)	7,032,402,014	2,762,169,154	88,334,720	431,111,553	1,493,229,946	45,243,951	8,494,752	276,690	2,356,421,756	167,035,672	45,481,737	13,660,344,095	16,798,814	28,107,344,855	039

	Total (NHE)	7,032,402,014	2,762,169,154	88,334,720	431,111,553	1,493,229,946	45,243,951	8,494,752	276,690	2,356,421,756	167,035,672	45,481,737	13,660,344,095	16,798,814	28,107,344,855

Table4.6: Financing AGENTS to Functions, 2001-02, in LE

Egypt National Health Accounts 2001-2002

Financing Agents by Functions 2001-02

		MOHP										Syndicates HF.2.5.2				NGOs HF.2.4	
		MOHP Head Quarter HF.1.1.1.1.1	MOHP Regional H Authority HF.1.1.1.1.2	CCO HF.1.1.1.1.3	THIO HF.1.1.1.1.4	H.I.O. HF.1.1.1.6	Min of Higher Education HF.1.1.1.2	Min of Aokaf HF.1.1.1.3	Min of Electricity HF.1.1.1.4	Min of Social Affairs HF.1.1.1.5	Public Firms HF.2.5.1	Households HF.2.3	Medical Syndicate HF.2.5.2.1	Agriculture Syndicate HF.2.5.2.2	Commercial Syndicate HF.2.5.2.3	Engineering Syndicate HF.2.5.2.4		Total
HC 1.1	Inpatient curative care	432,764,385	655,555,790	50,498,661	100,028,065	1,014,184,522	1,493,229,946	45,243,951	8,494,752	39,978	101,392,561	1,006,692,025	11,935,400	1,169,263	442,109	21,121,187	-	**4,942,792,594**
HC 1.1.1	Gynecology Obstetrics In	84,144,638	127,463,134	9,818,718	19,448,979	197,193,191	290,336,493	8,797,018	1,651,679	1,516	19,714,285	34,246,960						**792,816,610**
HC 1.3	Outpatient curative care	111,469,614	168,855,279	9,618,792	25,764,805	415,583,751				230,165		7,510,890,536	7,428,687	730,737	294,739		1,944,799	**8,252,811,904**
HC 1.3.1.1	Gynecology Obstetrics Out	3,674,449	5,783,277	317,071		13,699,170				5,032		17,519,560						**40,997,558**
HC 5.1	Pharmaceuticals and other medical nondurables					701,653,559					65,643,111	4,593,449,039						**5,360,745,709**
HC 6.1.1	Family Planning counselling	41,694,051	63,158,562									379,818,948					13,338,317	**498,009,879**
HC 6 excluding HC 6.1	Prevention and Public Health services	611,633,849	926,509,030									40,520,847					1,515,698	**1,583,179,425**
HC 6.1.2	Maternal Health Care	42,626,636	64,571,252							6,547		112,639,031						**219,843,466**
HC 7	Administration	296,096,032	448,529,210	25,645,900	69,054,862	152,088,918							1,056,606	25,200	104,299	1,173,510		**993,774,536**
HCR.1	Capital formation	536,892,000	354,959,329	2,571,367	107,344,418	72,911,006												**1,074,578,120**
HC nsk	Not specified by any kind	61,939,863	80,130,702									13,333,669						**155,404,235**
	TOTAL (THE)	**2,135,116,430**	**2,762,169,154**	**88,334,720**	**302,192,150**	**2,356,421,756**	**1,493,229,946**	**45,243,951**	**8,494,752**	**276,690**	**167,035,672**	**13,660,344,095**	**20,420,693**	**1,925,200**	**841,146**	**22,294,697**	**16,798,814**	**23,081,139,868**
HCR.2	Education and training of health personnel			(0)	51,999,239													51,999,239
HCR.3	Research and development in health				76,920,164													76,920,164
	Total (NHE)	2,135,116,430	2,762,169,154	88,334,720	431,111,553	2,356,421,756	1,493,229,946	45,243,951	8,494,752	276,690	167,035,672	13,660,344,095	20,420,693	1,925,200	841,146	22,294,697	16,798,814	23,210,059,271

4.2.1 Financing Sources

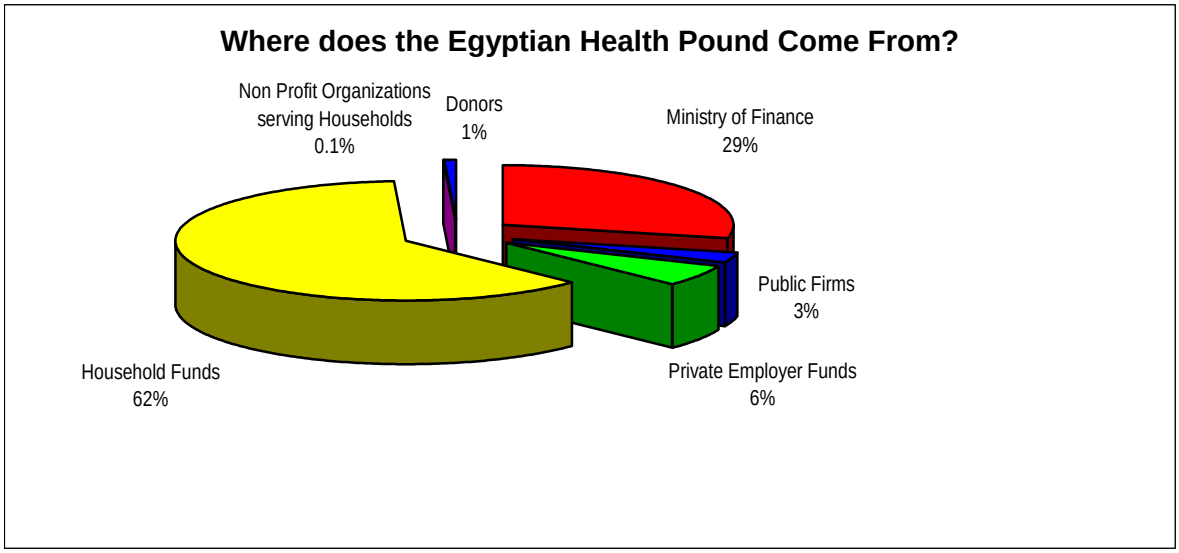
Three universal sources of financing health care are public (government), private (including households), and international donors.

As is evident from Table 4.7 and Figure 4.1, the private sector, particularly households, is the largest contributors to health care expenditures in Egypt by contributing up to approximately two-thirds of the total health care expenditures. Such a large burden of financing by households alludes to potential inequities in health care financing. (This topic is discussed in greater detail in later sections.)

Table 4.7: Sources of Funds

Sources	Amount (LE)	Percent
Ministry of Finance	6,617,459,917	28.7%
Public firms	637,398,378	2.8%
Public total	7,254,858,295	31.5%
Private employers	1,333,020,805	5.8%
Households	14,294,249,654	61.9%
Non-profit organizations serving households	17,882,298	0.1%
Private total	15,645,152,758	67.8%
Donors	181,128,814	0.8%
Total	23,081,139,867	100%

Figure 4.1: Sources of Funds



Public health care, implemented primarily by the MOHP, is financed from the general budget, from MOF tax revenue. The HIO is also a major public provider, but is not directly funded by the MOF. HIO programs are funded through payroll deductions made for the Social Insurance Organization and Pension Insurance Organization, which then provide health and pension benefits.

Parastatal firms such as Arab Contractors, Egypt Air, and National Steel Company provide health benefits to their employees and their families by contracting with outside health care providers. The national firms contribute nearly 3 percent of THE.

Private sources are mainly the OOP payments made by households in the form of user fees to health facilities, laboratories, or pharmacies. Much like the public firms, there are only a handful of wholly privately owned firms that offer health benefits as a part of their compensation package for employees. The private insurance sector is very underdeveloped in Egypt, and a decision was made to not track expenditures associated with the private insurance sector in this round of NHA.

International donors have never been a large contributor to health care in Egypt. The donor contribution here is relatively insignificant, less than 1 percent of THE. Most donor funding is for vertical programs such as family planning, MCH, reproductive health, and bilharzia programs, as well as some capital investments for upgrading the facilities. The key donors are USAID, the European Union, Italy, African Development Bank, and UNDP.

An attempt was made to carry out a donor survey to capture donor contributions more accurately; however, the response rate was zero, thereby limiting the options for the NHA team to validate the existing estimate of LE 181 million, which appears to be an underestimate. A majority of this amount is channeled through the MOHP; however, about 9 percent of donor contributions go directly to NGOs.

It should also be noted that it was not possible to obtain data from the Ministries of Defense and Interior. Therefore, the THE is likely to be an underestimate of the resource envelope for health care.

Table 4.8, a comparison of financing sources in the two rounds of NHA, reveals that the public contribution declined from 46 percent in 1995 to 32 percent in 2002. This decline is compensated by the substantial increase – to 62 percent – in the contributions of households in 2002.

Table 4.8: Comparison of Financing Source Estimates, 1994-95 and 2001-02

Sources	2001-2002	1994-95
Ministry of Finance	29%	35%
Public firms	3%	5%
SIO		6%
Private employers	6%	
Households	62%	51%
Non-profit organizations	<1%	
Donors	1%	3%
THE	LE 23,081 million	LE 7,516 million

Figures may not add up to 100% because of rounding errors

4.2.2 Financing Agents

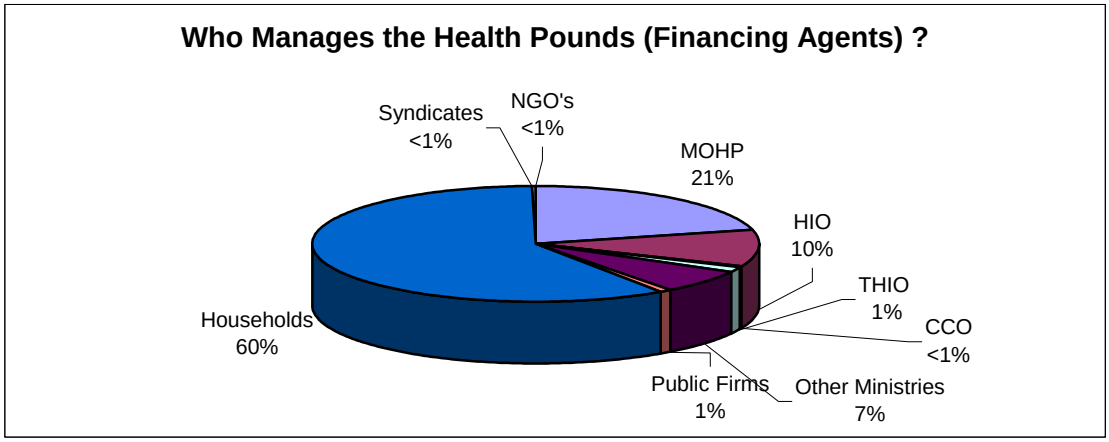
Financing agents are defined in the Producer's Guide as "institutions or entities that channel the funds provided by financing sources and use those funds to pay for, or purchase, the activities inside the health accounts boundary." In other words, these entities have programmatic control on how and where the funds are spent and actually pay providers for the health care services the providers deliver.

As shown in Table 4.9 and Figure 4.2, households, the MOHP, and the HIO manage more than 90 percent of health funds and how they are spent. Households, which are also the major financing source, manage their own money and pay their providers of choice in the form of user fees for services, or for drugs. The MOHP and HIO use their funds (either MOF disbursements or self-funding) to pay the providers they own or contract.

Table 4.9: Expenditures by Financing Agents

Financing Agents	Amount (in LE)	Percent
MOHP	4,897,285,584	21.2%
HIO	2,356,421,756	10.2%
CCO	88,334,720	0.4%
THIO	302,192,150	1.3%
Ministry of Higher Education	1,493,229,946	6.5%
Ministry of Al Aokaf (Charities)	45,243,951	0.2%
Ministry of Electricity	8,494,752	0.4%
Ministry of Social Affairs	276,690	0.1%
Public firms	167,035,672	0.7%
Public total	9,358,515,221	40.5%
Households	13,660,344,095	59.2%
Syndicates	45,481,736	0.2%
Private total	13,705,825,832	59.4%
NGOs	16,798,814	0.1%
Total	23,081,139,867	100%

Figure 4.2: Distribution of Expenditures by Financing Agents



4.2.3 Providers of Health Care Services

4.2.3.1 Health Care Utilization by Type of Facility

The 2002 ENHHUES (MOHP et al. 2002) found that a majority of outpatient visits occur at private facilities (Table 4.10a), whereas inpatient visits take place mostly at MOHP hospitals (Table 4.10b). Interestingly, the ENHHUES found that having insurance does not seem to make an

appreciable difference in where outpatient care is sought, and a household survey carried out in the governorate of Suez in 2004 corroborates this finding. However, the gap between where care is sought is more pronounced for inpatient care; that is, people with no insurance largely go to private clinics (68 percent) for outpatient care, but the same uninsured people will mostly likely choose a MOHP hospital over private (63 percent) for inpatient care.

Table 4.10a: Percent Distribution of Utilization of Outpatient Services by Type of Provider

Insurance Coverage	MOHP	HIO	Other Govt.	Private	Others
Insured	24.3	5.6	4.8	65.0	0.3
Not insured	27.1	0.2	3.5	68.4	0.8
Overall	24.9	4.6	4.5	65.6	0.4

Source: MOHP et al. 2002

Table 4.10b: Percent Distribution of Utilization of Inpatient Services by Type of Provider

Insurance Coverage	MOHP	HIO	Other Govt.	Private
Insured	47.3	11.5	16.3	24.8
Not insured	63.0	0.0	20.1	16.9
Overall	50.1	9.5	17.0	23.4

Source: MOHP et al. 2002

4.2.3.2 Health Care Expenditure by Type of Facility

As expected, most expenditures are incurred at private clinics and private pharmacies, as most care or self-medication occurs at these two types of facilities (Table 4.11a).

Table 4.11a: Expenditures by Type of Provider and Ownership

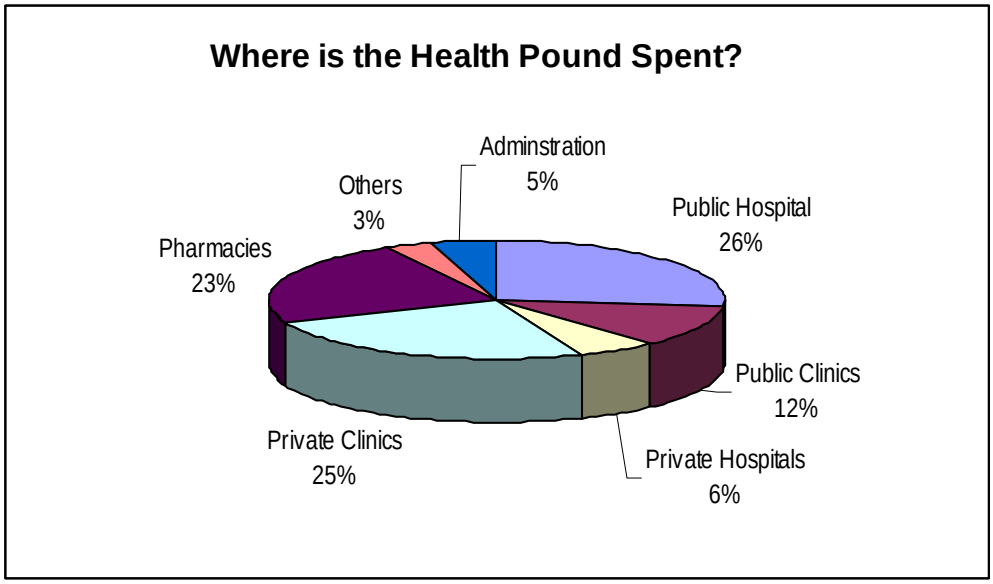
Type of Facility	Expenditures (in LE)	Percentage
MOHP hospitals	2,217,519,079	9.6%
CCO hospitals	165,773,188	0.7%
THIO hospitals	473,868,920	1.9%
University hospitals	1,974,620,597	8.6%
Other ministries hospitals	222,283,529	1.0%
HIO hospitals	1,165,623,524	5.1%
Public hospital total	6,183,688,836	26.8%
MOHP health centers	2,625,701,300	11.4%
HIO health centers	31,626,260	0.1%
Public clinics total	2,657,327,560	11.5%
Private hospitals	1,297,838,512	5.6%
Overseas hospitals (treatment abroad)	838,141	0.004%
Private hospitals total	1,298,676,653	5.6%
Office of physician (private clinics)	5,746,653,026	24.9%
Pharmacies	5,360,745,709	23.2%
Private clinics total	11,107,398,736	48.1%
Administration	1,068,585,983	4.6%
Others	765,462,101	3.3%
Total	23,081,139,868	

Because of high expenses related to inpatient care, this type of care is most often sought at a public facility. The MOHP, university hospitals, and HIO hospitals are the three types of hospitals where inpatient care is usually sought. Table 4.11b shows that 83 percent of the total hospital care takes place at public hospitals and 68 percent of total clinic-based care is delivered at private health centers. It also reveals that expenditures at clinics and hospitals are fairly equitable, each constituting nearly one-third of the total health expenditures.

Table 4.11b: Expenditures by Type of Provider

Type of Facility	Expenditure (in LE)	Percent	
		Percent by Type of Facility	Overall Percent
Hospital			
Public	6,183,688,836	83%	27%
Private	1,298,676,653	17%	6%
Hospital total	7,482,365,489	100%	32%
Clinics			
Public	2,657,327,560	32%	12%
Private	5,746,653,026	68%	25%
Clinics total	8,403,980,587	100%	36%
Private pharmacies	5,360,745,709		23%
Administration	1,068,585,983		5%
Others	765,462,101		3%
Total	23,081,139,868		100%

Figure 4.3: Distribution of Expenditures by Type of Provider



As shown in Table 4.12, the overall distribution of care by public or private facilities has not changed significantly since 1994-95. The public facilities constitute 42.9 percent of expenditures in 2002 as opposed to 44 percent in 1994-95, where as private facilities account for 53.7 percent, almost 4 percent more than in 1994-95.

Table 4.12: Comparison of Expenditures by Provider, 1994-95 and 2001-02

Expenditures by Providers	2001-02	1994-95
MOHP facilities	25.6%	19%
CCO hospitals	0.7%	4%
THIO hospitals	1.9%	2%
University hospitals	8.6%	8%
Other ministries hospitals	1.0%	3%
HIO facilities	5.2%	8%
Total public facilities	42.9%	44%
Private hospitals	5.6%	4%
Private clinics	24.9%	10%
Pharmacies	23.2%	36%
Total privatefacilities	53.7%	50%
Other facilities	3.3%	5%
TOTAL	LE 23,081,139,867	LE 7,516,000,000

4.2.4 Functions of Health Care Services

It should be re-emphasized that there are different ways to classify service delivery. The classifications used by the NHA methodology are explained in this section. Egypt's MOHP looks at delivery of care in terms of levels of care, i.e., primary, secondary, and tertiary care. However, to preserve international comparability and consistency with the NHA framework, expenditures for delivery of care are categorized in accordance with the NHA classification scheme.[4] Instead of distinguishing among levels of care, the NHA framework distinguishes between personal medical care or "curative" care and programmatic expenditures or "prevention and public health."

Curative care, as used by NHA, refers to care "in which the principal medical intent is to relieve symptoms of illness or injury, to reduce the severity of an illness or injury or to protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal function" (OECD 2000). The classification 'HC.1.1 Inpatient curative care' includes expenses incurred where there is an overnight stay at a provider such as a hospital (both general and specialty) or 'other institution providing inpatient care.'

HC.1.3 Outpatient curative care comprises mainly services delivered to outpatients by physicians in establishments of the ambulatory health care industry. Outpatients may also be treated in establishments of the hospital industry, for example, in specialized outpatient wards, and in community or other integrated care facilities' (OECD 2000). Both inpatient and outpatient curative care includes expenditures for health care provided at the various levels from the health facility to

[4] Again as noted above, this classification scheme is described in the WHO et al. *Producers' Guide* (2003) and is an extension of the OECD International Classification of Health Accounts (2000).

the hospital. What is typically considered to be administrative costs at the facility level, such as salaries, laboratory, and x-rays, are distributed proportionally between inpatient and outpatient care. Drugs, which are incurred at a hospital or other health facility, are also distributed across the share of inpatient and outpatient spending. The combination of inpatient and outpatient expenditures makes up the total of curative care.

It also is worth re-emphasized the distinction between the MOHP definition of "prevention" and the NHA classification of "prevention and public health." The MOHP considered prevention to be services to prevent illness and disease. The NHA definition of prevention under the classification 'HC.6 Prevention and public health' is composed of 'programmatic' expenditures on prevention and public health and does not include preventive services delivered as part of outpatient care. According to the NHA Producer's Guide (and OECD SHA), prevention and public health includes are 'designed to enhance the health status of the population as distinct from the curative services, which repair health dysfunction. Typical services are vaccination campaigns and programmes.' It should be noted that 'HC.6.1.1 Family Planning' and 'HC.6.1.2 Maternal child health care' refer only to programmatic expenditures and not those services delivered as part of outpatient care.

The NHA Producer's Guide term, 'Pharmaceuticals and other medical non-durables' includes all expenditures incurred at pharmacies and outlets that are autonomous from hospitals and health centers. To be consistent with this definition, the Egypt NHA includes those expenditures incurred at private pharmacies and HIO pharmacies. As noted earlier, HIO expenditures are captured under HC.5.1 because they operate independent pharmacies and also contract through private providers. Again per the Producer's Guide, drug expenditures incurred as part of inpatient or outpatient care are included within those functions (HC.1.1 Inpatient Curative Care and HC.1.3 Outpatient Curative Care) and are not separated within the 'pharmaceutical and other medical non-durables' classification. The classification 'Pharmaceuticals and other medical non-durables,' strictly captures pharmaceuticals at retail pharmacies outside of a health facility. Note also, at the provider level 'HP 4.1 Pharmacies" refers to those independent pharmacies (private and HIO) and excludes pharmacies/dispensaries that are embedded within hospitals and health centers.

Administration expenditures under HC.7 is defined as 'health administration and health insurance are activities of private insurers and central and local authorities, and social security. Included are the planning, management, regulation, and collection of funds and handling of claims of the delivery system.' In the Egypt NHA estimation, this category includes only administration occurring at the central level and not administration at facilities (which is included within the curative care expenditure).

Capital formation 'comprises gross capital formation of domestic health care provider institutions excluding those listed under HP.4 'Retail sale and other providers of medical goods'. This principally includes spending on items likes the construction of buildings and equipment for health providers. For the Egypt NHA matrices, Bab III expenditures (which includes investment and capital) are included under capital formation. The classification, 'not specified by any kind (nsk)' are those expenditures that cannot be classified under any particular classification or the expenditure is too small (less than 2 percent of THE) to disaggregate.

As previously mentioned, administration expenditures under HC.7 is defined as 'health administration and health insurance are activities of private insurers and central and local authorities, and social security. Included are the planning, management, regulation, and collection of funds and handling of claims of the delivery system.' In the Egypt NHA this category includes only administration occurring at the central level and not administration at facilities.

In accordance with Producer's Guide methodology, Table 4.13a breaks down curative care into inpatient (LE 4,942,792,594) and outpatient care (LE 8,252,811,904) which provides an aggregated total of LE 13,195,604,498 for curative care expenses. Table 4.13b shows that curative care makes up more than half (57 percent) of THE. Pharmaceuticals account for 23 percent of spending, with the next largest contribution coming from prevention and public health (10 percent), including MCH care.

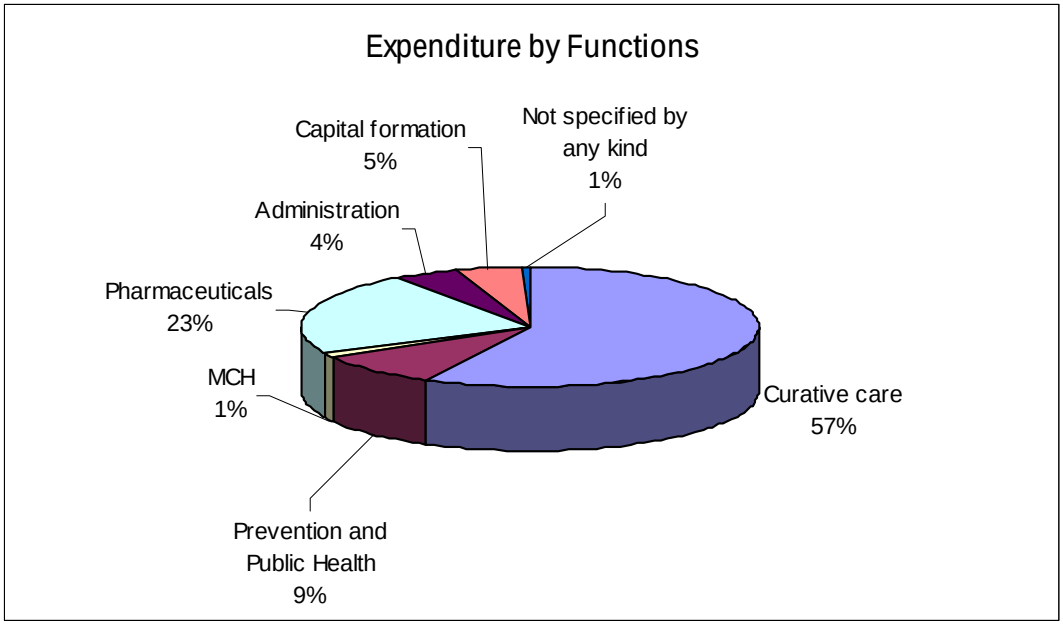
Table 4.13a: Expenditure by Function (All figures in LE)

Inpatient curative care	4,942,792,594
Outpatient curative care	8,252,811,904
Pharmaceuticals and other medical non-durables	5,360,745,709
Prevention and public health services	1,583,179,425
Family planning counseling	498,009,879
MCH	219,843,466
Administration	993,774,536
Capital formation	1,074,578,120
Not specified by any kind	155,404,235
Total	23,081,139,868

Table 4.13b: Expenditure by Function (aggregated)

Type of Function	Amount (in LE)	Percent
Curative care	13,195,604,498	57%
Prevention and public health	2,081,189,303	9%
MCH	219,843,466	1%
Pharmaceuticals	5,360,745,709	23%
Administration	993,774,536	4%
Capital formation	1,074,578,120	5%
Not specified by any kind	155,404,235	1%
Total	23,081,139,868	

Figure 4.4: Health Care Expenditures by Functions



5. Expenditures at the Subsystem Level

5.1 Public Sector

5.1.1 Ministry of Health and Population

As mentioned earlier, the Egyptian constitution guaratees health care to all its citizens, it is through the MOHP network that the government implements this pledge. The MOHP is thus the single largest institutional payer and provider for services in Egypt. In addition, it is responsible for setting the policy and regulatory framework in Egypt.

5.1.1.1 MOHP Infrastructure

The principal task of the MOHP headquarters is management of the entire MOHP network and a few vertical programs, mainly on family planning and reproductive health. Table 5.1 summarizes MOHP operations.

Table 5.1: Summary of MOHP Operations

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider–Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
Provides comprehensive public health, primary, preventive and curative care services through its facilities	All citizens and residents Highly subsidized care services for the entire population	Ministry of Finance (general tax revenues) Households (OOP spending) Donors (through grants and loan for vertical programs)	Primary and secondary services treatment as well tertiary treatment provided by MOHP, financed through budget derived from general revenue (tax) and donations from donors 80% of services provided by MOHP providers are free and 20% paid.	All Egyptian citizens are eligible	Operates: 252 urban health care centers: 72 in Cairo, 9 in Alex and 171 in other governorates. 633 health care centers: 9 health centers for chest 334 rural integrated centers 290 rural health groups 1,126 MOHP general and district hospitals: 67 in Urban Governorates, 559 in Lower Egypt, 461 in Upper Egypt and 39 in Frontiers Governorates MOHP hospitals specialization: 922 general hospitals 204 specialized hospitals Total number of MOHP beds is 78,951

5.1.1.2 MOHP Budget

The system of accounting used in Egypt is designed to exercise financial control only according to the distribution of its inputs; the four organizational inputs (Bab I-IV) are wages and salaries, current expenditures including medical supplies and drugs, capital investments, and loan repayments. It is not useful for planning purposes. Nor is it conducive to estimating health expenditures as per the NHA expenditure categories, because it does not permit analysis by program, task, and health care function.

Almost 75 percent of MOF allocations for health are allocated to the MOHP. A majority of these allocations (59 percent) are transferred directly to the health directorates in each governorate and the remaining to the MOHP headquarters. The governorates have little discretion on how the money is spent, because many line items are pre-determined at the headquarters level.

Some of the other public entities that engage service delivery, such as the Curative Care Organizations (CCO) or THIO, receive a part of their funds from the official (MOF) health budget that is channeled through MOHP, but they are autonomous organizations. As such, they are treated separately.

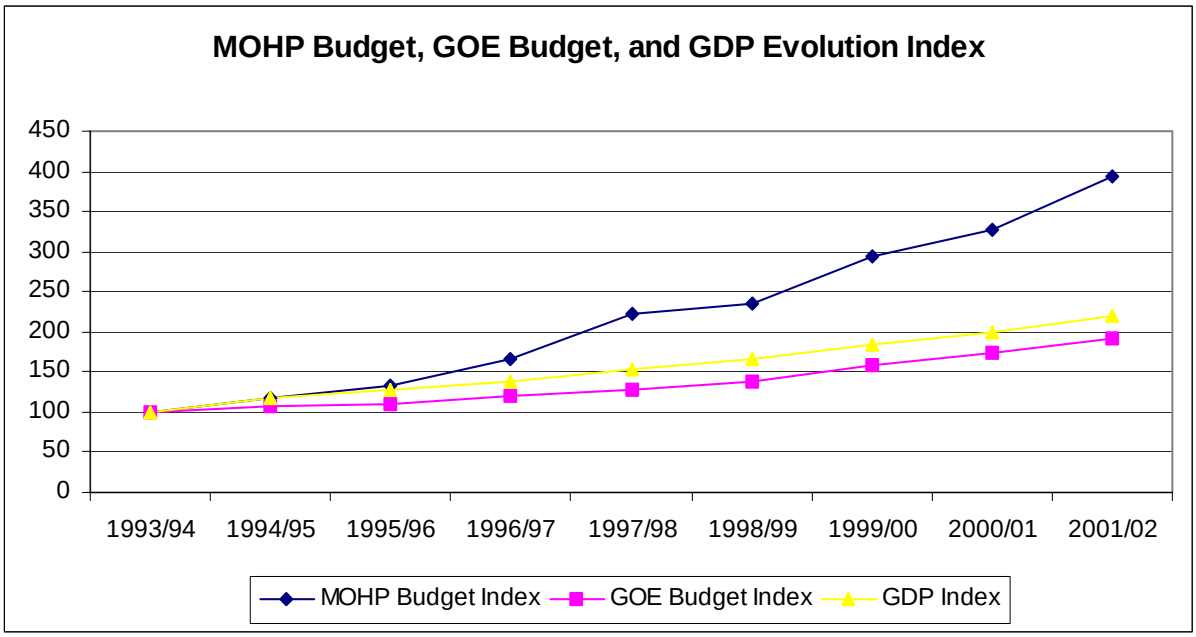
5.1.1.3 Analysis of MOHP Expenditures

In the first half of 1990s, the MOHP budget accounted for less than 2 percent of the total government budget. However, MOHP expenditures grew rapidly during the rest of the decade; to keep up with the growing demand for health care, and its budget allocations also increased at a faster rate than the GOE budget or GDP. By 2001-02, the MOHP budget had almost doubled and accounted for 3.8 percent of the GOE budget in nominal terms.

Table 5.2: MOHP Budget, Government Budget And GDP Evolution, Index, 1993-94-2001-02

	MOHP Budget Current LE	GOE Budget Current LE	GDP Market Price LE	Population	MOHP Budget Constant LE (93/94 base)	MOHP Budget per Capita Constant LE	MOHP Budget Index	GOE Budget Index	GDP Index
1993/94	1,197,226,600	65,313,549,000	175,000,000,000	55,657,977	1,197,226,600	22	100	100	100
1994/95	1,400,807,400	70,826,364,000	205,000,000,000	56,880,814	1,293,414,779	23	117	108	117
1995/96	1,576,260,844	71,681,940,200	224,125,000,000	58,147,576	1,474,320,516	25	132	110	128
1996/97	1,988,909,900	77,450,765,500	243,250,000,000	59,414,339	1,884,762,494	32	166	119	139
1997/98	2,655,000,000	83,000,000,000	268,000,000,000	60,688,169	2,550,432,277	42	222	127	153
1998/99	2,798,000,000	91,000,000,000	291,000,000,000	61,964,621	2,707,305,273	44	234	139	166
1999/00	3,510,000,000	103,000,000,000	320,500,000,000	63,259,172	3,411,078,717	54	293	158	183
2000/01	3,916,000,000	113,000,000,000	348,850,000,000	64,603,745	3,820,487,805	59	327	173	199
2001/02	4,730,000,000	126,000,000,000	385,000,000,000	66,668,346	4,614,634,246	69	395	193	220

Figure 5.1: MOHP and GOE Budget, and GDP Evolution, 1993-94 to 2001-02



A look at the overall trends of MOH finances in Table 5.3 reveals that, until 1995, the allocations to the health directorates were nearly four times that of the headquarters; however, by 2001-02, the proportion of allocations to headquarters had increased and were more comparable to the regions.

Table 5.3: Overall Trends in MOH Expenditures

Expenditures (% allocation)	FY 1990	FY 1991	FY 1992	FY 1993	FY 1995	FY 2001-02
MOHP HQ	10.9%	12.2%	20%	24.2%	20.2%	43.6%
MOHP regions	89.1%	87.8%	80%	75.8%	79.8%	56.4%

Despite substantial increases in the overall allocations at the MOHP regions, the overall proportion of each Bab did not change significantly between 1995 and 2002 (Table 5.4). In contrast, at MOHP headquarters, an increase in the overall allocations has also resulted in a completely altered distribution within the Babs. During the seven-year period, expenditures on drugs and medical supplies increased 1.5 times; expenditures on capital investments including loan repayments are also substantial.

Table 5.4: MOHP Expenditures: Regions and Headquarters

	1994-95 (LE)	Proportion of Each Bab	2001-02 (LE)	Proportion of Each Bab	Percent Increase 1994/95-2001/02
MOHP regions					
Bab 1	743,397,764	62%	1,690,537,121	61%	127%
Bab 2	260,965,193	22%	579,331,320	21%	122%
Bab 3	184,493,477	15%	354,859,329	13%	92%
Bab 4	18,577,432	2%	137,441,384	5%	640%
Regional total	1,207,433,866		2,762,169,154		129%
MOHP headquarters					
Bab 1	18,970,324	6%	180,410,240	9%	851%
Bab 2	177,357,366	22%	1,107,858,396	56%	525%
Bab 3	97,151,970	15%	489,892,000	25%	404%
Bab 4	9,989,610	2%	192,625,794	10%	1828%
HQ total	303,469,270		1,970,786,430		549%

As mentioned earlier, the MOHP is the main provider of health care services. As seen in Table 5.5a, 97 percent of its funding comes from the MOF, and the remaining 3 percent is for donor-supported programs. Nearly 31 percent of expenditures are incurred at MOHP hospitals, and 19 percent is spent on administration (Table 5.5b).

Table 5.5a. Sources of Funds (all figures in LE)

Sources of Funds	MOHP HQ	MOHP Regions	Total	Percent
MOF	1,964,684,430	2,762,169,154	4,726,853,584	97%
Public firms	6,102,000		6,102,000	0%
Donors	164,330,000		164,330,000	3%
Totals	2,135,116,430	2,762,169,154	4,897,285,584	
Percent	44%	56%		

Table 5.5b Uses of MOHP Funds (all figures in LE)

Uses of Funds	MOHP HQ	MOHP Regions	Total	Percent
MOHP hospitals	678,366,805	847,154,185	1,525,520,990	31%
CCO hospitals	9,964,000	18,877,000	28,841,000	1%
THIO hospitals	21,351,000	32,798,000	54,149,000	1%
University hospitals	18,502,000	42,711,000	61,213,000	1%
Other ministries' hospitals	3,624,000	6,865,000	10,489,000	< 1%
HIO hospitals	2,622,000	1,716,000	4,338,000	< 1%
MOHP health centers	939,172,772	1,214,994,192	2,154,166,964	44%
Administration	399,573,990	516,923,075	916,497,065	19%
Others	61,939,863	80,130,702	142,070,565	3%
Totals	2,135,116,430	2,762,169,154	4,897,285,584	

Table 5.5c shows that the MOHP spends the largest share its funds on prevention and public health programs (35 percent), which includes family planning (2 percent) and maternal health care programs (2 percent). Programmatic spending is then followed by curative care expenditures that amount to 28 percent of MOHP expenditures. Note that in addition to spending on family planning and maternal health *programs*, the MOHP does spend on family planning and maternal health *services* offered as part of outpatient and inpatient visits. These expenditures are embedded within the curative care expenditures in Table 5.5c (as per the Producers' Guide). A closer look reveals that the MOHP spends a larger share on inpatient curative care (22 percent) than outpatient curative care (6 percent). In the NHA, the MOHP's categorization of service delivered at the primary, secondary, and tertiary care levels are captured under the inpatient and outpatient classification. These two classifications account for health spending at all of the various levels of care, from the health post to the hospital. Drugs that are acquired at a health facility is proportionally divided between inpatient and outpatient curative care. This is also the same for administrative costs, such as salaries, laboratory, and x-rays. However, pharmaceuticals purchased at independent retail outlets, such as private pharmacies and HIO, not associated within a health facility are classified under HC.5.1.

Spending on capital formation (18 percent) and administration (15 percent) nearly makes up the balance of the functional breakdown. NHA defines capital formation to be the purchase of equipment and construction of buildings. Bab III expenditures are included in capital formation. Administrative costs that take place at the central level are accounted for here within the 15 percent.

Table 5.5c: Functional Distribution of MOHP Funds (all figs in LE)

	MOHP HQ	MOHP Regions	Total	Percent
Inpatient curative care	432,764,385	655,555,790	1,088,320,175	22%
Outpatient curative care	111,469,614	168,855,279	280,324,894	6%
Pharmaceuticals and other medical non-durables		-	-	0%
Prevention and public health services (incl. family planning and maternal health care)	695,954,536	1,054,238,844	1,750,193,380	36%
-Family planning	41,694,051	63,158,562	104,852,613	2.1%
-Maternal health care	42,626,636	64,571,252	107,197,888	2.2%
Administration	296,096,032	448,529,210	744,625,241	15%
Capital formation	536,892,000	354,859,329	891,751,329	18%
Not specified by any kind	61,939,863	80,130,702	142,070,565	3%
Total	2,135,116,430	2,762,169,154	4,897,285,584	100%

5.1.2 University Hospitals

Playing a key role in providing tertiary care are hospitals that are affiliated with universities and that fall under the jurisdiction of the Ministry of Higher Education (Table 5.6). The MOHP refers patients to these MOHE hospitals. There are about 53 university hospitals in Egypt: most (31) are in Urban Governorates (those in Cairo affiliated mainly with the Ain Shams University), 20 are in Lower Egypt, and two are in Upper Egypt. Their total number of beds in these hospitals in 2002 is 20,9111, 36 percent more than in 1994-95; total spending at the hospitals has increased nearly 1.5 times since the last round of NHA in 1994-95.

Table 5.6: Summary of University Hospitals Operation

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
Provide facilities for teaching and research Autonomous facilities affiliated with individual universities and falling under the responsibility of the Ministry of Higher Education	Providing high quality care mostly in Cairo area and generate significant resources through user fees 70 % of the coverage is for medical faculty and students and 30% for private household.	Sources are: MOF through the MOHE budget User fees paid directly by households	Primary, secondary and tertiary treatments	University hospitals are used predominately by the non-poor population	Operates: 53 hospitals in Egypt: 31 in Urban Governorates, 20 in Lower Egypt and 2 in Upper Egypt. Facilities had 20,911 beds

University hospitals are funded by the MOF allocation to the MOHE, user fees, and contracts with companies. Almost all their budget goes to their own facilities, predominantly on curative care.

Table 5.7: Sources of Funds

Sources of Funds	Amount (in LE)	Percent
MOF	1,144,002,620	77%
Public firms	104,768,198	7%
Private firms	244,459,128	16%
Total	1,493,229,946	100%

5.1.3 Curative Care Organizations

CCOs are autonomous organizations established in 1964 as part of a move to nationalize some of the private hospitals. Even though they are autonomous, they fall under the jurisdiction of the MOHP. The CCOs have their largest operations in Cairo and Alexandria, where they operate six and four hospitals respectively. The CCO also operates one general hospital in each of the governorates of Port Said, Kalyoubia, Damietta, and Kafr El Cheikh, though since 1997 the MOHP has acquired control of the operations of those hospitals. This change in management and control explains the dramatic drop in CCO spending between 1994-95 and 2001-02. The 1994-95 round of NHA estimated CCO expenditures to be LE 230 million; by 2001-02, this number dropped 160 percent, to LE 88.3 million.

Table 5.8: CCO Operations

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider–Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
CCO comprise 6 independent autonomous organizations providing health care services under the authority of the Minister of Health	Coverage: HIO patients MOHP patients (agreed to give a number of beds for MOH and paid a lump sum) Patients from public and private firms Households	CCO sources of financing are: MOF self-financing for recurrent costs HIO (revenue by providing services - contract) MOHP (revenue by providing services - contract) Public firms (revenue by providing services - contract) Households (revenue by providing services to households)	Contract services to HIO, MOHP, and companies per contract Provide services to private households Free emergency services for poor under arrangement with GOE (for this they receive grants out of the MOHP budget) 20% of services provided by THIO providers are free and 80% paid	100% cost recovery no subsidies from GOE Only urban patients	Operates: 11 CCO hospitals: 10 in Urban Governorates and 1 in Lower Egypt Facilities have 2,129 beds

As indicated by the name, CCOs provide only curative care. Their revenue base is fee-for-service. Separate pricing categories are set up based on the class and grade of an inpatient's care. All outpatient care is charged at a universal rate. However, some free care is available for the very poor, and reimbursement for the free care is negotiated with the MOF. As seen in Table 5.9, a majority of CCO funding comes from contractual agreements with private and public firms to provide health care services to their employees. When broken down by functional expenditure category, a sizeable 68 percent is targeted for curative care followed by administration and capital investment. Within curative care, more than half of the expenditures are on drugs and medical supplies (accounting for 34 percent of all CCO spending).

Table 5.9: Summary of CCO Finances

Description		Total (in LE)	Percentage
Source of funds	Ministry of Finance	8,986,794	10%
	Public firms	13,897,259	16%
	Private firms	58,540,917	66%
	International donor loans	6,909,751	8%
	Total income	88,334,720	
Expenditures by function	Curative care	60,117,453	68%
	Administration	25,645,900	29%
	Capital investment	2,571,367	3%
	Total functions	88,334,720	

5.1.4 Teaching Hospital and Institutes Organization

The THIO is a separate body under direct responsibility of the Minister of Health. THIO serves only small proportion of population; it runs 10 general teaching hospitals, most of which are located in Cairo and urban areas in other governorates. The general perception is that these facilities provide higher quality care than do MOHP facilities. THIO also runs nine research institutes:

- Tropical Medicine Institute
- Hearing and Speech Institute
- Poliomyelitis Institute
- Cardiology Institute
- Endocrinology Research Institute
- Nutrition Institute
- Memorial Institute for Ophthalmologic Research
- Diabetes Institute
- Nephrology & Urology Institute

Table 5.10: Summary of THIO Operations

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
THIO is a separate body under the authority of the Minister of Health Covers a small group of population	Coverage: MOHP patients HIO patients Private firms Private patients	MOF MOHP (through contract) HIO (through contract) Private firms (through contract) International donors (through grants and loan) Household spending (OOP)	Primary and secondary services treatment as well as tertiary treatment 50% of services provided by THIO providers are free and 50% paid.	Serve only small proportion of population	Runs 10 general teaching hospitals and 9 research institutes located in Cairo and other urban areas (9 in Cairo, 5 in Giza and 5 in other governorates). Operates: Facilities have 5,404 beds.

As Table 5.11 shows, total THIO expenditure is to LE 302 million, almost 1.3 percent of THE in 2001-02. THIO facilities are financed mostly through transfers from the MOF (nearly 65 percent in 2001-02). Self-funding and co-payments recovered almost 33 percent; the level of co-payment is higher than all other facilities in Egypt. Donors accounted for the remaining 2 percent.

Table 5.11 also shows that a large share of expenditures goes toward capital investment (36 percent) and curative care (41 percent). Within curative care, a small share is targeted for drugs and medical supplies (approximately 8 percent of total THIO expenditures). This is closely followed by administration (23 percent).

Table 5.11: Summary of THIO Expenditures

		In LE	Percent
Sources of THIO Funds	MOF	197,177,120	65%
	Public firms	55,949,058	19%
	Private firms	43,959,974	15%
	International donors	5,105,849	2%
	Total income	302,192,150	100%
Expenditures by functions	Curative care	125,792,870	41%
	Administration	69,054,862	23%
	Capital investment	107,344,418	36%
	Total functions	302,192,150	100%

5.2 Private Sector: Households

As mentioned earlier, NHA estimates that households incur nearly 62 percent of the total health care costs. This is an alarmingly high proportion given that health care in Egypt is theoretically free and guaranteed by the Constitution. And the proportion is significantly higher than before – the NHA 1994-95 NHA estimate was 51 percent. This steep increase in household expenditures has important policy implications, particularly because of the regressive nature of OOP spending.

The Egypt 1994 National Household Health Expenditure and Utilization Survey showed total OOP expenditures as LE 98.3. For purposes of the NHA study this was scaled down because information on expenditures on drugs obtained by examining total domestic production, imports, and exports indicated that households overestimated expenditures on drugs. However, in this current round of NHA such adjustments were not made because the data from domestic production, exports, and imports exceeded the total public and private expenditures (from the 2002 ENHHEUS).

Part of the large increase in household expenditures between the 1994-95 and 2001-02 NHA can be explained by the following. The 1994-95 NHA reported per capita household expenditure to be LE 64.9 (instead of LE 98.3) and the 2001-02 to be LE 204.90. If the base of LE 98.3 from the 1994 ENHHEUS was used including the specific inflation rate from that period, then the figure adjusts to LE 163.16. The difference between LE 163.16 and LE 204.90 (26 percent) can be explained by the fact that medical inflation rose at a rate faster than general inflation. In addition, drugs and inpatient care expenditures have also increased. Per capital expenditures on inpatient care in 2004 were 2.9 times those in 1994; on drugs they were 2.29 times higher. Furthermore, expenditures on outpatient care in 2004 was 1.9 times that in 1994.

It should be noted that estimation of household expenditures is fraught with problems irrespective of the source of data. Total household spending on health care services can be estimated either from revenue records of health care providers or household surveys. However, in most countries, including Egypt, it is not feasible to get accurate revenue records from private providers. The household surveys too have inherent problems of under- or overreporting in addition to sampling and non-sampling errors. For this round of NHA, household estimates are based on the second ENHHEUS, completed in 2002. The NHA report uses insurance estimates based on the HIO while the household survey is primarily used to estimate direct OOP expenditures. The results based upon this survey should be interpreted bearing in mind the aforementioned caveats.

5.2.1 Out-of-Pocket Expenditures

The average per capita expenditure on health is estimated at LE 204 (Table 5.12). This amount increases nearly 3.5 times for those who are 60 and older. As expected, an analysis of the components of per capita OOP expenditures reveals that the majority of the costs are incurred on outpatient care (59 percent), followed by drugs (34 percent).

Table 5.12: Annual per Capita Health Expenditures by Background Characteristics

Background Characteristics	Outpatient	Inpatient	Drugs	Others	Total
Urban	139.5	21.3	91.9	0.2	252.9
Rural	109.5	11.3	55.1	0.2	176.1
Male	105.0	14.5	59.5	0.3	179.3
Female	136.8	15.7	78.5	0.1	231.1
Age group					
<5	121.0	3.8	13.3	-	138.1
5-15	46.1	3.0	12.0	0.1	61.2
16-29	83.3	8.9	23.2	0.1	115.5
30-39	136.9	18.3	59.1	0.1	214.4
40-49	158.5	22.5	127.0	0.4	308.4
50-59	277.5	44.1	234.9	0.3	556.8
60+	315.2	58.4	324.0	0.6	698.2
Expenditure quintile					
<799	45.6	3.9	20.9	-	70.4
799-1170	77.9	7.7	43.5	0.1	129.2
1171-1654	110.3	10.3	59.2	0.3	180.1
1655-2551	169.6	19.2	91.5	0.2	280.5
Total	120.7	15.1	68.9	0.2	204.9
Overall expenditures	8,046,869,362	1,006,692,025	4,593,449,039	13,333,669	13,660,344,095
Percentage	58.9	7.4	33.6	0.1	100

Source: MOHP et al. 2002

5.2.2 Distribution of Per Capita Expenditures

A very large proportion of OOP expenditures are on drugs (43 percent), followed by x-rays (15 percent) and lab tests (8 percent). A relatively small percentage is spent on hospitals and doctors, 4 and 5 percent respectively. The 'other' category includes a large portion for dental costs.

Table 5.13: Distribution of Annual per Capita Expenditures on Various Cost Components (in LE)

	Outpatient	Inpatient	Drugs	Others	Total Household Expenditure	Percent
Annual per capita	120.7	15.1	68.9	0.2	204.9	
Hospitals		7.22			481,469,452	4%
Doctors	6.34	3.68			667,942,648	5%
Drugs	17.74	1.4	69.9		5,869,487,251	43%
Lab	15.65	0.65			1,086,197,098	8%
X-ray	30.89	0.67			2,104,086,873	15%
Transport	3.43				228,802,551	2%
Others	46.65	1.48			3,222,358,222	24%
Total					13,660,344,095	

Source: MOHP et al. 2002

5.2.3 Choice of Provider

As has been discussed, a majority of the Egyptian population prefers private clinics and pharmacies when seeking outpatient care (Table 5.14a), despite that they must pay out of pocket whereas care at public outpatient facilities is subsidized or free. This could be due to perceived poor quality at the public facilities, and the tendency among people to self-medicate. The high costs associated with care at private facilities does, however, seem to influence the choice of provider for inpatient care – nearly three-fourths of households choose public facilties, primarily MOHP hospitals (50 percent), followed by other government facilities like THIO or university hospitals.

Given the pattern of utilization, it is expected that the expenditures at private facilities and pharmacies will exceed OOP expenditures at any other type of facility (Table 5.14b). Since public facilities provide care free of cost or at a highly subsidized rate, OOP expenditures on care at those facilities are minimal.

Table 5.14a: Choice of Provider

	MOHP Facilities	HIO Facilities	Other Govt. Facilities	Private	Other
Outpatient	24.9	4.6	4.5	65.6	0.4
Inpatient	50.1	9.5	17.0	23.4	-

Source: MOHP et al. 2002

Table 5.14b: Distribution of Household Expenditures by Type of Provider

Type of Provider	Amount	Percent
MOHP hospitals	481,157,369	3.5%
University hospitals	420,177,651	3.1%
Other public hospitals	127,899,671	0.9%
HIO hospitals	103,110,896	0.8%
Private hospitals	1,224,202,433	9.0%
Private clinics	5,722,246,844	41.9%
MOHP health centers	437,619,662	3.2%
Pharmacies	4,593,449,039	33.6%
Others	550,480,529	4.0%
Total	13,660,344,095	

5.3 Donor Assistance

Numerous international partners provide assistance with Egypt's health care and health sector reform work. A study conducted by the MOHP with the help of the Ministry of International Cooperation found that, in 2002, Egypt was cooperating with eight development agencies including international organizations, bilateral agencies, and international NGOs (Table 5.15).

Table 5.15: Summary of External Assistance Disbursements to Health Sector

				Total Project Budget	
Donation	Currency	Time Period	Total Foreign Currencies	Total (US$)	Total (LE)
USAID (Reproductive Health)	US$	1997-2009	73,525,000	73,525,000	338,215,000
USAID (Health Reform) 263/254	US$	1997-2003	24,000,000	24,000,000	110,400,000
USAID (Mother and Child)	US$	1995-2005	104,950,000	104,950,000	482,770,000
USAID (Bilharzia Vaccine)	US$	1998-2003	6,700,000	6,700,000	30,820,000
USAID (Epidiemological Surveillance)	US$	2001-2005	75,591,000	75,591,000	347,718,600
USAID (Health Reform) 638/263	US$	1997-2003	60,000,000	60,000,000	276,000,000
UNDP	US$	2003-2007	2,028,000	2,028,000	9,328,800
Finland	Finnish markaa	2001-2004	14,600,000	10,074,000	46,340,400
Holland	Dutch guilder	1998-2003	2,700,000	1,504,440	6,920,424
African Bank	1 M Unit = 5.730M US$	2000-2003	1,000,000	5,730,000	26,358,000
EU	Euro	1997-2004	110,000,000	127,455,919	586,297,229
Italian Coop	Italian Lira	2000-2003	3,140,000,000	139,593,478	642,130,000
Italian Coop Loan (Chemical poisoning)	US$	2002-2004	1,983,000	1,983,000	9,121,800
Italian Coop (Primary HC) Loan	LE	2002-2005			34,093,000
Social Funds (Local)	US$	1999-2005	17,400,000	17,400,000	80,040,000

Source: DOP and Ministry of International Cooperation

The study found that, in 2002, the total of donor disbursments to MOHP projects was LE 164 million. The largest was for the Mother and Child Care project. NHA estimates for 2001-02 show that foreign assistance constituted less than 1 percent of THE. The NHA team suspects that this is an underestimation; nevertheless, other sources validate this trend. The Millennium Development Goals Report on Egypt (2004) reports that, of the approximately US$1.6 billion in total Official Development Assistance that the country received in 2001-02, only 3 percent (US$ 48 million) was allocated to health. The NHA team estimates donor contributions of LE 181 million (US$ 40 million).

Table 5.16: How the donor dollars are spent (all fig. in LE)

Projects' Spending Description	Grants
Institutional strengthening	8,685,000
Specialized medical centers	10,000,000
Investment /medical equipments	37,000,000
Family planning	7,301,000
Rural health services	1,247,000
Bilharzia	28,208,000
Specialized treatment & cancer	1,110,000
Reproductive health	11,180,000
Mother and child care	59,599,000
Total	164,330,000

Source: DOP and Ministry of International Cooperation

5.4 Health Insurance Market: Private and Social Schemes

5.4.1 Private Insurance Market

The private sector insurance market in Egypt is still in its nascent stages. Very few private insurance companies offer health insurance, essentially a reimbursement insurance for expenses incurred at both public and at private health care facilities. Companies make no inquiries about the insured's medical condition, income, business or profession, place of work, etc. To be insured, it is sufficient to pay the annual premium, in advance.

There is limited capacity to regulate the private insurance industry, despite a pressing need to revise the existing insurance legislation. The lack of actuaries to calculate risks and premiums is currently a major constraint for the development of both private health and life insurance.

The private insurance industry is hoping to develop products that will be attractive to the emerging middle- and upper-income segments of the population. It also intends to capture the market of people who currently go abroad for treatment.

Given the limited role of the private health care insurance market, as well as general budgetary and time constraints, this round of NHA does not include private insurance.

5.4.2 Health Insurance Organization

5.4.2.1 Overview

The HIO was established in 1964 as the institution in Egypt responsible for social health insurance, providing compulsory health insurance to workers in the formal sector. The HIO is an independent government organization under the supervision of the Minister of Health and Population. It finances health care services through a combination of payroll and other taxes. It delivers health care services through its own network of hospitals, clinics, and pharmacies, as well as by contracting private sector providers. HIO headquarters in Cairo is directed by the Chairman of the Board.

The HIO started operations in the governorate of Alexandria. The original intent was to expand social health insurance to the entire population, but for various reasons, this did not happen. Instead, coverage has been extended to four major groups of beneficiaries under different legislation:

- Government employees (Law 32 enacted in 1975)
- Government, public and private sector employees, widows and pensioners (Law 79 enacted in 1975)
- School children (Law 99 enacted in 1992)
- Newborn children

Coverage of workers does not include their families.

Table 5.17: HIO Laws (Schemes) and Benefits

	Law 32 / 1975	Law 79 / 1975 "Workers"	Law 79 / 1975 "Pensioners & Widows"	Law 99 / 1992	Ministerial Decree 380 / 1997
Beneficiaries	Government employees	Government employee (labor force)	Pensioners & Widows	Students up till high school	Newborns up till school age
Beneficiaries' annual premium	0.5% of basic salary	1% of total salary	1% of pensions	4 LE	5 LE
Employer/Gov. share (Prem.)	1.5% of basic salary	3 % of salary Additional 1% and 2% for, public or private, labor accident		12 LE plus Earmarked taxes (0.10 LE per cigarette packet)	No government share
Co-payments	0.05 LE per visit to general practitioner 0.10 LE per specialist visit 50% of drug and investigations cost or price to maximum of 1 LE	No co-payments	No co-payments	1/3 drug price	0.5 LE per visit 1/3 drug price
Flow of fund	Employers' checks	SIO	SIO	Ministry of Education & MOF	Stamps

Source: Gaumer 1998.

Each of the laws above stipulates the beneficiary population, benefits package, beneficiary premiums and co-payments, and administrative aspects. In effect, the HIO manages several separate social health insurance programs, not a single, unified program. For example, in July 1992, when the People's Assembly of Egypt enacted Law 99 expanding health insurance to cover all school children, the HIO set up the School Health Insurance Program (SHIP) as a separate program covering school children only.

The benefits packages guranteed under the HIO laws are broad and generous. Employees covered under Laws 32 and 79 are entitled to receive all services including transplants and plastic surgery. Originally treatment abroad was also included in the package; however, it was later amended. Under the current law, insurance for students pays for treatment only inside Egypt. Immunization services are also provided within the framework of the MOHP prevention program.

Table 5.18: Benefits Package to which HIO Beneficiaries are Entitled

Services	Employees (Law 32 and 79)	Students (Law 99)	Pensioners and Widows (Law 79)
Curative care:			
General practitioner service	Yes	Yes	Yes
Specialist services	Yes	Yes	Yes
Dental	Yes	Yes	Yes
Home visits	Yes	Yes	Yes
Inpatient care	Yes	Yes	Yes
Surgical and medical	Yes	Yes	Yes
Radiology, lab, other investigations	Yes	Yes	Yes
Medicines (drug benefit)	Yes	Yes	Yes
Ante, natal, post-natal care	Yes	Yes	No
Prosthesis and physiotherapy	Yes	Yes	Yes
Overseas treatment	Yes	Yes	No
Preventive care:			
Annual medical exams (at the start of the school year)	No	Yes	No
Immunization	No	Yes	No
Periodic medical exam	No	Yes	No
School hygiene	No	Yes	No
Health education	No	Yes	No
Nutrition supervision	No	Yes	No

Source: Abd El Fattah, Hassan, Ibrahim Salen, Emad Ezzat et al. August 1997

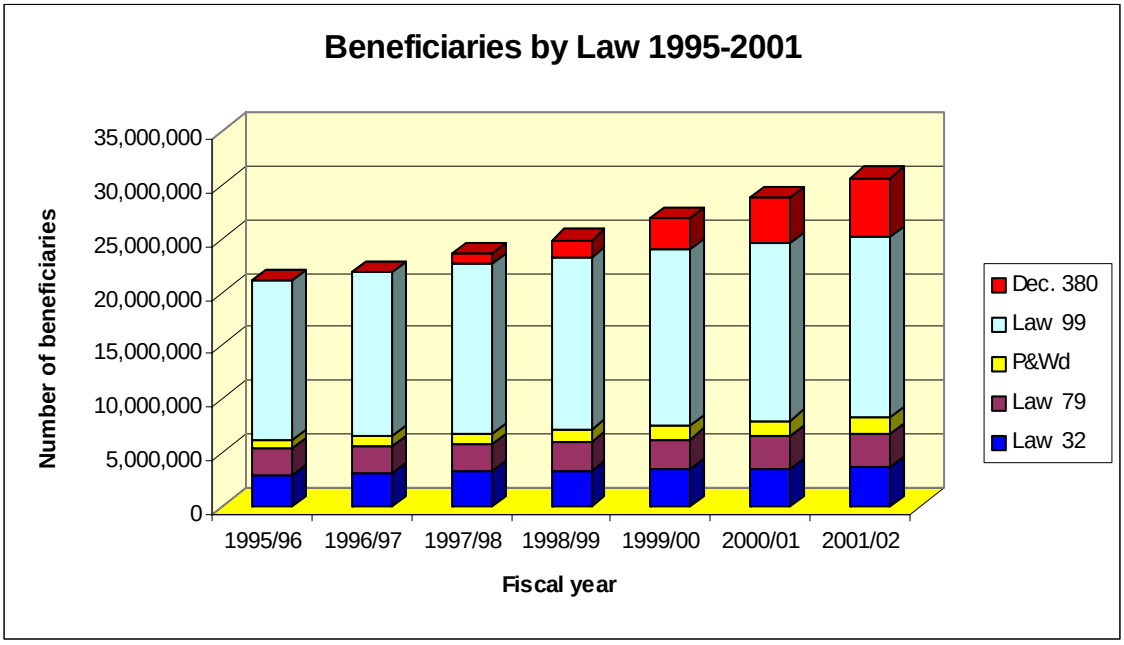
Between 1995 and 2002, HIO enrollment increased dramatically (45 percent), to more than 30 million (Table 5.19 and Figure 5.3). Half of all enrollees in 2001-02 came through Law 99; newborns constitute the next largest cohort, nearly 16 percent of the total enrollment.

Table 5.19: Distribution of HIO Beneficiaries by Law 1995-02

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02
Law 32	2,961,000	3,129,000	3,251,000	3,367,000	3,462,000	3,550,000	3,629,996
Law 79	2,492,000	2,551,000	2,638,000	2,693,000	2,844,000	3,022,000	3,121,529
P& Wd	768,000	840,000	958,000	1,133,000	1,259,000	1,462,000	1,617,923
Law 99	14,890,000	15,370,000	15,771,000	16,039,000	16,345,000	16,584,000	16,740,022
Dec. 380	N/A	N/A	1,000,000	1,600,000	2,924,000	4,219,000	5,525,125
TOTAL	21,111,000	21,890,000	23,618,000	24,832,000	26,834,000	28,837,000	30,634,595

Source: HIO Annual Statistical Report

Figure 5.3: HIO Beneficiaries by Law



The HIO is organized into eight regional branches, all supervised by central headquarters based in Cairo. Because of differences in the size and composition of formal sector employment across the country, the extent of coverage by regions varies considerably from the total population in the governorates (Table 5.20).

Table 5.20: HIO Branches and the Governorates They Cover

HIO Branch	Governorates
Cairo	Cairo
North West Delta	Alexandria, Behaira and Matrooh
Middle Delta	Minofiah, Gharbia, Kafr El Sheikh
East Delta	Sharkia, Kalubiah, Dhakalia, Damietta
North Upper Egypt	Giza, Fayooum, Beni Suef, Miniya
Mid Upper Egypt	Assuit, Suhag, El Wadi Gedid
South Upper Egypt	Qena, Aswan, Red Sea
Canal	Port said, Ismailia, Suez, North and South Sinai

Source: Abd El Fattah, Hassan, Ibrahim Salen, Emad Ezzat et al. 1997

Table 5.21 summarizes HIO operations.

Table 5.21 Summary of HIO Operations

Benefits by Health Subsystems	Coverage/ Special Categories	Principal Financing Sources	Provider – Payer Relationship	Percentage of Population Covered or Eligible	Size of Operation
HIO is an independent government organization under the authority of the Minister of Health	Provide compulsory insurance to workers in the formal sector. Coverage extended to 5 major groups of beneficiaries: Law 32: government employees Law 79: govt, public and private employees Widows and pensioners Labor accident compensation School children and students	Principally funded through a system of premiums and co-payments (household spending) Premium collection: SIO: mandated premium collected by the SIO PIO: premium collected from pensioners MOF covers operating losses.	Contracted providers include MOHP, CCO, and private providers.	28.8 million are covered in 2001-02. Aapproximately 50% of the total population of Egypt in 2001-02 registered for the scheme. This excludes those citizens over 65 years who did not register.	Organized into 8 regional branches supervised by a central headquarters in Cairo. Runs a network of designated hospitals, clinics, and pharmacies across the country: 40 HIO hospitals: 14 in Urban Governorates, 17 in Lower Egypt, 9 in Upper Egypt. 61 injury centers 7,137 clinics (inside schools) 246 clinics (outside schools) 1,429 clinics for employees 452 pharmacies in addition to contracted pharmacies Operates: Facilities have 8,644 beds. Employed 6,748 full-time physicians, 1,482 dentists, 681 nurses, 1,217 pharmacists.

5.4.2.2 Financial Situation of the HIO

The HIO is running a deficit that has grown over the years (Table 5.22 and Figures 5. 4 and 5.5). By analyzing the financial situation of each law separately, it is clear that two programs have especially large deficits: Law 79 "Pensioners & widows" and Law 32.

Table 5.22: HIO Financial Situation 1995-2001

	FY1996/97	FY1997/98	FY1998/99	FY1999/00	FY2000/01	Net Balance
Revenues by law						
Law 32 in 1975	89,309,211	103,277,214	111,775,057	117,717,030	126,701,710	
Law 79 in 1975	274,319,994	294,421,741	319,108,528	356,678,415	385,918,966	
Law 79 in 1975 (P&Wd)	25,988,424	31,681,153	39,010,691	45,260,661	70,173,443	
Law 99 in 1992	516,042,731	537,590,693	551,470,656	562,419,407	603,329,558	
TOTAL REVENUES	905,660,360	966,970,801	1,021,364,932	1,082,075,513	1,186,123,677	
Expenditures by law						
Law 32 in 1975	236,313,477	260,018,174	267,666,232	271,857,280	296,109,866	(169,408,156)
Law 79 in 1975	275,819,107	316,868,215	329,504,759	359,170,844	390,615,614	(4,696,648)
Law 79 in 1975 (P&Wd)	166,002,418	206,996,144	236,852,113	279,993,738	315,189,890	(245,016,447)
Law 99 in 1992	392,703,358	434,412,443	487,279,348	541,583,008	581,301,764	22,027,794
TOTAL EXPENDITURE	1,070,838,360	1,218,294,976	1,321,302,452	1,452,604,870	1,583,217,134	
NET BALACE	(165,178,000)	(251,324,175)	(299,937,520)	(370,529,357)	(397,093,457)	

Source: El Mankabadi n.d.

Figure 5.4: HIO Revenues and Expenditures

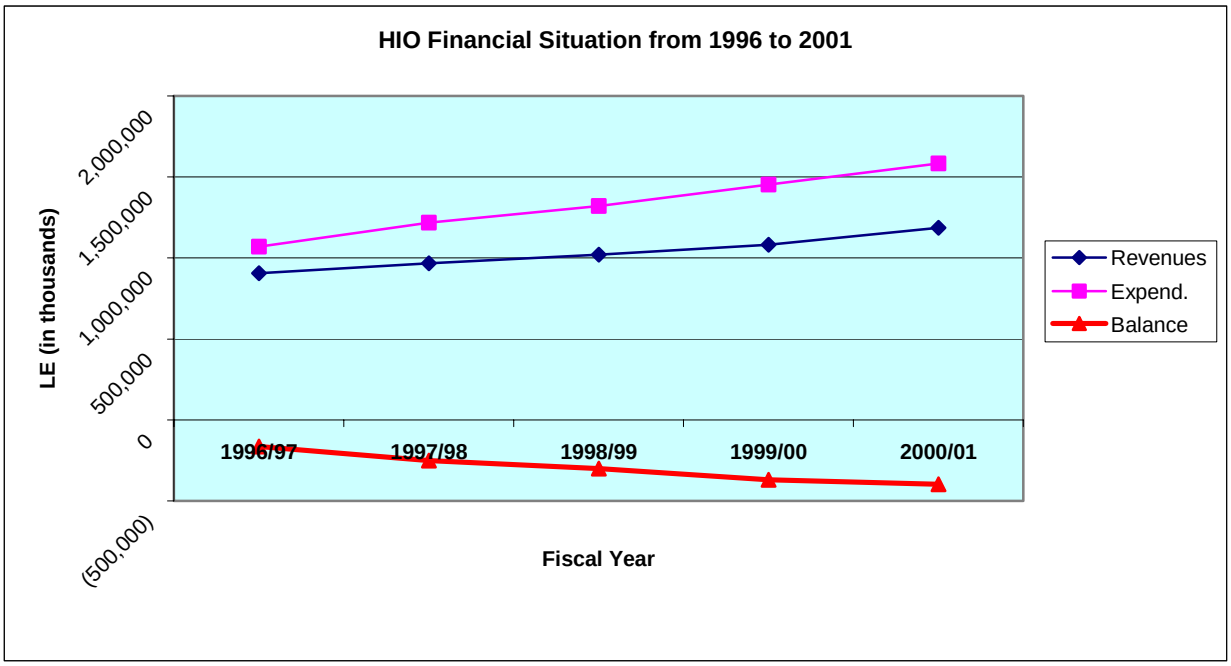
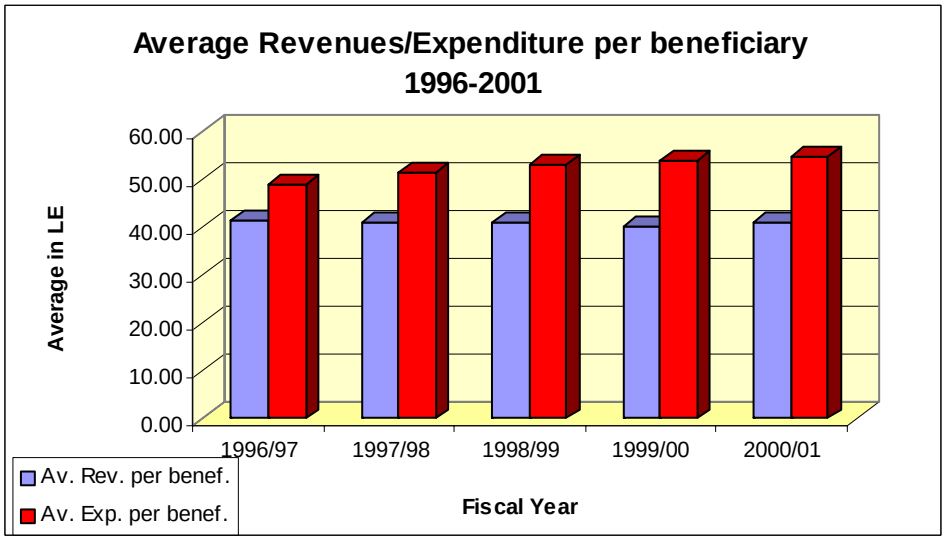


Figure 5.5: Ratio of Revenues to Expenditures per Beneficiary



5.4.2.3 Summary of HIO Funds

HIO represents 10.2 percent of THE in Egypt in 2001-02. It is funded primarily through premiums and co-payments for services rendered, and taxes. The SIO collects the mandated premiums from covered employees and employers, while the PIO collects premiums from pensioners. Both these organizations work under the oversight of the Ministry of Social Affairs. The 1 percent labor accident premiums collected from workers are divided equally between the HIO and SIO. This

is because the SIO provides early retirement benefits to those who can no longer work because of work-related accidents. In practice, the SIO does not provide reliable information to the HIO on the identity or number of beneficiaries enrolled, and so it is not possible for the HIO to check whether all premiums due have been collected and transferred (Gaumer 1998). SHIP is financed by a system of individual premiums paid by enrolled students (LE 4 per child), a government contribution of LE 12 per child, and a cigarette tax of 10 piastres per packet (Gaumer 1998). In addition, the HIO has received additional transfers from the MOF to cover operational losses. Local donors or Zakat account for the remaining 0.04 percent. Contributions from public and private firms is also a significant amount for HIO.

Tables 5.23a-c and 5.24 show sources and uses of HIO funding. It is important to note that while Table 5.23a shows households contributing directly to HIO, those premiums are deducted as payroll taxes by SIO and PIO and then transferred to HIO. The NHA methodology always looks at the ultimate source of funding – in this case, households.

Table 5.23a: Sources of HIO funds

Sources	Amount (in LE)	Percent
MOF	514,146,806	22%
Public firms	356,593,794	15%
Private firms	949,610,580	40%
Households	525,996,676	22%
Non-profit institutions serving households (Zakat)	10,073,900	<1%
Total	2,356,421,756	

Table 5.23b: Uses of HIO Funds

Uses	Amount (in LE)	Percent
MOHP hospitals	210,840,719	9%
CCO hospitals	21,584,654	1%
THIO hospitals	36,792,400	2%
Other ministries' hospitals	511,777	0%
HIO hospitals	1,058,174,628	45%
Private hospitals	35,721,732	2%
Overseas hospitals (treatment abroad)	601,429	0%
MOHP health centers	33,914,674	1%
HIO health centers	31,626,260	1%
Pharmacies	701,653,559	30%
Administration	152,088,918	6%
Others	72,911,006	3%
Total	2,356,421,756	

Table 5.23: Functional Distribution of HIO Funds

Functions	Amount (in LE)	Percent
Inpatient curative care	1,493,229,946	43%
Outpatient curative care	415,583,751	18%
Pharmaceuticals and medical non-durables	701,653,559	30%
Administration	152,088,918	6%
Capital formation	72,911,006	3%
Total	2,356,421,756	

Table 5.24. Uses of HIO Funds by BAB

Expenditures by BAB	Amount (in LE)	Percent
BAB 1 (Wages & Salaries)	497,652,012	21
BAB II (Current Expenditures, drugs, etc)	1,207,670,090	51
BAB III (Investments)	135,258,393	07
BAB IV (Loan repayment)	515,841,261	21
Total	2,356,421,756	

5.5 The Pharmaceutical Sector

Overall pharmaceutical expenditures, including those incurred at facilities as well as independent pharmacies, account for more than one-third (37 percent) of THE in Egypt. Egypt is one of the largest producers of drugs in the region, but production is mostly restricted to reformulation and repackaging of imported constituents. As seen in Table 5.25, more than half of the drugs are distributed through private pharmacies. It is also worth noting that households spend LE 4.6 billion on drugs, which constitutes nearly 68 percent of their total OOP expenditures. Nearly one-third of total expenditures on drugs are incurred by the public sector, and the rest by the private sector.

Table 5.25: Summary of Pharmaceutical Expenditures

Summary	In LE	In US$	Percent
Total pharmaceutical expenditures	8,584,524,962	1,866,201,079	37%
Total health expenditure	23,081,139,867	5,017,639,101	
Public	2,715,134,099	590,246,543	32%
Private (households)	5,869,390,864	1,275,954,535	68%
Total pharmaceutical expenditures per capita	129	27.99	
Total expenditure on drugs at retail pharmacies	5,360,745,709	1,165,379,502	62%
Total expenditure on drugs administered at care at health facilities	3,223,779,252	700,821,577	38%

Until the mid-1990s, the sale of drugs in Egypt was tightly regulated. The larger share of the domestic pharmaceutical industry was publicly owned and wholesale distribution was in the hands of a government parastatal. In addition, there has been a long system of retail price controls, which is strictly adhered to. All drugs sold in the Egyptian market require a license, and these licenses normally stipulate the retail price at which they must be sold. The bulk of the drugs sold to the private

sector eventually are sold in the retail market by pharmacies. Doctors in Egypt are not allowed to sell or dispense drugs, and the quantities they use in their practice are relatively small (Rannan-Eliya, Nada, Kamal, and Ali 1998). In the last decade, different estimates have described different levels of consumption of drugs. Discrepancies in data resulted between the level of import and export and estimation of the MOHP drugs market. A number of reasons might account for these differences. First, the size of the pharmaceutical market in Egypt might have been underestimated by previous studies. Second, households might be under reporting the amount they spend on drugs and might not include items such as routine consumption that other studies include. However, even if this happens, the differences are far too large to be explained this way. Another reason for these differences is that there might be a parallel import of drugs into the country. This could be in the form of donations received by NGOs that might bypass normal channels. It is probably a combination of the various factors mentioned above that explains the differences between the estimates.

In order to get a clear estimate of the national consumption on drugs, two sources were used and analyzed as follows[5]:

- The ENHHUES to estimate OOP spending at private pharmacies.
- Chapter 2 (Bab II) of the budget exenditures of other financing agents (mainly public financing agents) to derive the total public spending on drugs.

Data on local production of drugs, imports, and exports were not conclusive to determine total consumption and therefore not used in the study.

Table 5.26: Distribution of Drug Consumption (All figures in LE)

Drugs 2001-02	BAB II	Total Drugs
MOHP	1,687,189,716	1,361,030,856
HIO	1,207,670,090	701,653,559
CCO	59,237,076	29,618,500
Universities (MOHE)	634,216,212	511,612,787
THIO	83,306,256	41,653,100
Public firms	65,643,111	65,643,111
Public	32%	2,711,211,979
Private	68%	5,869,487,251
TOTAL		8,584,524,962

[5] The total consumption as calculated above differs from the estimates made by the DOP, which showed total consumption at LE 6.2 billion. The DOP estimates were based on local production and imports. This DOP number is 28 percent lower than the study estimate. The authors did not have access to the workings of the DOP pharmaceutical estimate.

6. Main Policy Issues

The NHA results highlight that Egypt is an below-average spender on health care compared to other countries in a similar socio-economic strata. The MOHP is working hard to improve the health care system as is evident by substantial increase in its outlays since 1994-95. It also continues to invest increasingly in the "Family Health Model" approach and facilitating care at the primary level. However, the last two rounds of NHA show that many of the health care financing issues continue to exist – high household share of expenditures, financial constraints facing the HIO, and high pharmaceutical expenditures. In addition, the Family Health Fund, which is key to HSRP, remains insolvent. Financing remains fragmented leading to inefficiencies and inequities.

Specific policy implications are:

1. Excessive burden on households to pay for health care: Inequity and insurance coverage

Equity in the health sector refers to narrowing differences in health status or access to services among different groups (socio-economic, ethnic, genders, or geographic groups). Where income inequities are the main focus, public funding of health should be pro-poor, and seek to redistribute income from rich to the poor. In this light, the Egypt NHA highlights serious potential equity issues. Since the last round of NHA in 1994-95, it appears that households continue to incur the largest proportion of health care expenditures. In 2002, we see an increase to almost 62 percent of total health care expenditures being borne by households, up by 11 percentage points since 1994-95. Such a high proportion of expenditures by households raises equity and access issues.

Despite the mandate of universal coverage, a majority of the uninsured (58 percent) seeks outpatient care at private clinics. Although some may argue that this shows they are exercising free choice of provider and choosing to pay the out-of-pocket expenditures, this is likely an indication of a real or perceived problem in quality of care at MOHP facilities. Such a large proportion of uninsured population seeking care at private clinics also implies that the poorer segments of the uninsured populations bear a greater and possibly unfair financial burden compared to insured or wealthy insured.

More than one in five (23 percent) households have no health coverage at all. Given that insurance improves access to services, such a high proportion of uninsured contributes to inequity in access to care. The highest percentage of household with no health insurance coverage exists in the lowest wealth index. More than one-third (37 percent) in this lowest socio-economic category are not covered by any insurance system.

2. Need for further decentralization in the Egypt health sector to improve efficiency.

Increasingly, households are incurring a larger burden of the health care costs by seeking care at private facilities. Such a trend alludes to perceived or real gaps in quality of care which could result from allocative and technical inefficiencies in the system. The highly centralized resource management and administrative structures at the MOHP that formulate policies and strategies for governorates that are not necessarily responsive to local needs. The health directorates and health

districts have only limited financial control and decision-making authority. They implement the central policies with little autonomy to mobilize resources or set local priorities.

The HSRP focuses on equity and efficiency. Achieving these goals hinges on making governorates and districts the units for change as well as building capacity at the central level. Some decentralization has taken place at the MOHP, such as MOHP regional health authorities' expenditures of LE 2.7 billion as opposed to headquarters expenditures of LE 1.9 billion. Nevertheless, there is much room for improvement. A deliberate and overt effort to foster decentralization is necessary so that there will be a closer match between the elements of supply and demand; improvements in allocative and technical efficiency will result in efficient use of resources and prompt attendance to local needs. Decentralization also will enhance the health sector's ability to address community demands, reduce financial strain on households, and improve quality of care.

3. Decline in donor allocations for health in Egypt

Donor contributions since 1995 appear to have decreased. The NHA team suspects this finding may be an underestimation; however, other sources validate this trend. The Millennium Development Goals Report on Egypt (2004) reports that the country received about US$ 1.6 billion in total Official Development Assistance in 2001, but only 3 percent (US$ 48 million) was allocated for health.

4. Cost containment

In addition to the escalating health care costs, all public health services are highly subsidized with very little in the way of user fees at the point of service delivery. In order to improve the financial wellbeing of the health sector, the MOHP needs to identify potential areas to contain costs. Cost containment measures are likely to encounter several challenges, including the centralized budgeting and accounting systems that extend little authority and control to managers of public facilities to monitor expenditures.

5. Rationalization of expenditures

a. Capital expenditures

Capital investments by the MOHP have continued to increase rapidly, diverting much-needed resources from actual service delivery. In addition, there is a concern of not even having sufficient recurrent funding to maintain capital projects in operation. There is a need to develop guidelines for resource allocation based on justification and need, to develop indicators to measure actual allocation, and to use NHA to monitor resource flows in the future.

b. Pharmaceutical expenditures

Pharmaceutical expenditures continue to account for a large proportion (more than one-third) of total health care expenditures. One reason for this is a high level of imported pharmaceuticals and lack of comprehensive policy for using generic drugs substitutes. To effectively contain pharmaceutical costs, the government should implement policies that facilitate efficient importation and distribution of drugs, and improve its management and oversight of this sector. Heeding to this need, the MOHP is already in the process of finalizing policies and a procedures manual for drug logistics, with technical assistance from PHR*plus*.

c. Curative expenditures

Secondary and tertiary care facilities receive more investment allocations than do primary care facilities. Even though the public sector facilities are where most of the secondary and tertiary care is administered (MOHP et al. 2002), occupancy rates, particularly in MOHP facilities, do not exceed 40 percent (United National Development Programme 2004 [2002 data]). Clearly, this highlights the need for rationalizing expenditures for curative care.

Annex A. Equity Analysis

The Financial Burden of Health Care

A family experiencing either acute or chromic illness faces a significant drain on its resources. The average cost of an outpatient visit is LE 50 to LE 60, and the average monthly cost of maintenance medication is LE 45 to LE 49. In a country where half the households spend less than LE 25 daily, these purchases often force painful financial decisions. For the poorest families, the decision is sometimes not to seek treatment. Health insurance offers some protection from this dilemma, but many adults, especially in poor families, are not insured. Those who are both poor and uninsured are the most likely to forgo necessary treatment for economic reasons. This section explores relationships among poverty, insurance, and health care documented by a national survey ENHHEUS? of 10,000 households interviewed in 2002.

Maintenance Medication

Maintenance medication is commonly prescribed to reduce the risk associated with chronic conditions such as hypertension, asthma, or elevated cholesterol. These conditions, and the medication to treat them, become more common among older patients. At any age, women are more likely than men to take such medication. Table 1 and Figure 1 show use of such medications in Egypt: nearly half (45 percent) of all households have at least one family member who routinely uses maintenance medication. More than two-thirds of households where one or more of the members is over 65 years of age make monthly purchases of such medication. Only about half of poor households (those in the lowest 20 percent of consumption levels) with elderly members receive any such maintenance medications, compared with 65 to 77 percent of households at higher income levels.

Table A1. Households in which at least one member used maintenance medication, by age and expenditure level, 2002

	Age of oldest household member				
Expenditure quintile	**16 to 45**	**46 to 55**	**56 to 65**	**Over 65**	**All ages**
Lowest	17%	39%	48%	54%	33%
-	19%	44%	59%	72%	39%
Middle	25%	54%	63%	73%	45%
-	33%	56%	69%	77%	54%
Highest	28%	57%	63%	65%	53%
All expenditure groups	24%	52%	61%	68%	45%

Figure A1. Use of maintenance medication, by age, sex, and expenditure quintile, 2003

Similar disparities mark each age bracket. After age 45, the gap between the lowest quintile and the average for all families remains at about 13 to 14 percentage points. We used logistic regression to estimate the effects of poverty while controlling for differences in age, sex, and geography (Table 2). The estimates are based on individuals (not households), but include household characteristics. The table shows the odds ratio associated with each independent variable. Odds ratios are a common means of expressing differences in probability. The odds of receiving medication are the probability that the event occurs (receives medication) divided by the probability that the event fails to occur (no medication). For example, if half the patients in a group receive medication, the odds are 50 percent (receives) divided by 50 percent (fails), or 1.000. If one-third of the patients in another group receive medication, the odds would be 1/3 divided by 2/3, or ½ (.500). To compare these two groups, we report the ratio of the odds (.500:1.000, or ½).

The equation adjusts for the obvious demographic effects. The first line shows that being female (compared with being male) has an odds ratio of 1.517. This means that women are 52 percent more likely to be taking such medication than similarly situated men (the 95 percent confidence interval is 43 to 62 percent). Similarly, the odds of taking some form of medication increase by about 7 percent for each additional year of age. Taking these adjustments into account, we find a significant disadvantage for the rural population, where the odds of receiving medication are 68 to 81 percent as high as for similarly situated urban patients. Moreover, adults living in households in the lowest expenditure quintile are about half as likely to receive maintenance medication as those in the highest quintile, even after adjusting for differences in age, sex, and urbanity. A more detailed analysis of the data (table not shown) finds that the gap between the richest and poorest quintiles grows significantly with age: the elderly poor are the most disadvantages of all. Insurance and education have almost no independent effect after these other factors are controlled.

Table A2. Logistic regression of access to maintenance medication, adults 2002

	Odds Ratio	Standard Error	t	P>|t|	95% Confidence Interval	
Female	1.517	0.048	13.060	0.000	1.425	1.616
Age[a]	1.069	0.001	57.750	0.000	1.066	1.071
Expenditure quintile						
Lowest	0.543	0.040	-8.290	0.000	0.470	0.627
	0.729	0.046	-5.060	0.000	0.645	0.824
Middle	0.856	0.046	-2.930	0.004	0.771	0.950
	0.961	0.049	-0.780	0.436	0.869	1.062
Highest	1.000					
Education of most educated member	0.985	0.013	-1.120	0.263	0.959	1.012
Adults uninsured	0.992	0.039	-0.200	0.839	0.919	1.071
Rural	0.742	0.033	-6.770	0.000	0.680	0.809

[a] Excludes persons younger than 16 years of age.

Among adults who pay for monthly maintenance medication, half spend more than 4.4 percent of their monthly income (Table 3) and half spend less. For those living in households in the poorest quintile of expenditure, however, the median purchaser spends 8.4 percent of the household's monthly total budget on medication. A quarter of these poorest purchasers spend more than 16 percent of their monthly budget on medication, and 10 percent spend more than a quarter of the household budget on medication. Even in the richest quintile, ten percent of purchasers spend 9.8 percent or more of the household budget on medication.

Table A3. Distribution of maintenance medication costs as a percent of monthly expenditures, by expenditure level[a]

Expenditure quintile	Median	75th Percentile	90th Percentile
Lowest	8.4%	16.3%	26.5%
-	6.3%	11.1%	17.9%
Middle	5.3%	9.1%	15.4%
-	4.0%	7.8%	14.3%
Highest	2.5%	5.0%	9.8%
All levels	4.4%	8.9%	15.9%

[a] Excludes persons with no spending for maintenance medication.

Because of the high cost of medication relative to family income, many Egyptians forgo medication that they need. Among the poorest families, 60 percent agree with the statement "Sometimes you don't receive medication although you need it because it is too expensive." (Table 4) Although richer respondents are less likely to report this experience, even among the richest quintile of the population substantial numbers miss needed mediation. Forty-two percent of wealthy rural Egyptians who purchase maintenance medication say they sometimes do not receive it (or some other medication that they need).

Table A4. Percent agreeing: Sometimes you don't receive medication although you need it because it is too expensive, by location and whether patient takes monthly maintenance medication, 2002

	Urban		Rural	
Expenditure quintile	**No Meds**	**Takes Meds**	**No meds**	**Takes Meds**
Lowest	61%	58%	60%	64%
-	47%	49%	53%	61%
Middle	37%	42%	45%	53%
-	26%	34%	42%	45%
Highest	19%	25%	38%	42%

Outpatient Care

Although insurance is not a factor in access to maintenance medication, it is related to utilization of outpatient care. We begin this discussion with a brief review of the survey's measurement of insurance coverage and how we use it in our analysis.

El-Zanaty & Associates report that 83 percent of Egyptians live in households covered by insurance.[6] They find little variation in coverage associated with income, geography, or socio-economic status. Both the high coverage rate and its seeming invariance are possibly unintended consequences of the way insurance coverage was recorded in the interviews. The interviewer asked one respondent (usually the head of household) to list all health insurance policies covering any member of the household. Although many of these covered only one or a few members of the household, the interviewer did not specifically note *who* was covered. Thus it is sometimes impossible to determine whether a person is insured or not. Many uninsured individuals live in households where someone else is insured. These are counted in El-Zanaty's 83 percent.

We were able to recover some information about the insurance status of individuals because one of the most common forms of insurance in Egypt is provided by schools to enrolled students. Eighty-four percent of children between the ages of 6 and 17 (inclusive) are covered by such insurance. For nearly a quarter of Egyptian households, this is the only form of insurance (Table 5). Another 23 percent have no insurance for anyone in the household, so that a total of 46 of households have no coverage for any percent adults. We analyze the effects of insurance by comparing these uninsured adults with the remaining 54 percent of households where at least one of adult was covered. We cannot generally be sure which adults are insured in these households, so our analysis understates the true effect of insurance, because some uninsured people cannot be excluded from the "covered" households. Despite this, the analysis shows marked economic differences in access to insurance, and significant barriers in access to medical care by the uninsured poor.

[6] 2003, page 65.

Table A5. Household insurance coverage, 2002

Household members with insurance coverage	Proportion of Households.	Standard Error
None	22.8%	0.5%
Children only	23.1%	0.6%
Some or all adults	54.0%	0.7%

Economic and social factors influence access to insurance (Table 6). The poorest fifth of households (as measured by monthly consumption) are twice as likely to be uninsured as the richest fifth. Families where no member attended high school are more than three times as likely to be uninsured as those with at least one college education. Geography is also a factor. More than half of rural families have no adult coverage, compared with 38 percent of urban households. Some governorates also have lower rates of insurance coverage than others (appendix table A1).

Table A6. Percent of households in which none of the adults are covered by insurance, by social and economic characteristics, 2002

Location	Proportion of Households.	Standard Error
Urban	37.9%	1.1%
Rural	53.5%	0.9%
Most Educated Member of Household		
Primary	66.0%	1.0%
Secondary	44.9%	0.9%
University	26.4%	0.9%
Consumption		
Lowest	64.1%	1.2%
	51.2%	1.2%
Middle	44.0%	1.3%
	36.9%	1.2%
Highest	35.4%	1.3%
Presence of children		
No one under 17	55.2%	1.3%
One or more children present	43.0%	0.8%

Each of these factors contributes independently to insurance coverage (Table 7)[7]. Well-to-do families with limited educations are unlikely to be insured, especially in rural areas, while among the college educated, about half of even the poorest urban families have coverage. Eighty to ninety percent of rural families where no one went to high school (and who currently have no school-age children living at home) have no insurance coverage. When children are present in such families, the adults are more likely to be insured, perhaps because of differences in the demographics of adults in families with and without children.

[7] We tested the statistical significance of these characteristics using logistic regression. Each is statistically significant at the 95% confidence level, even when controlling for the effects of the others.

Table A7. Percent of households in which none of the adults are covered by insurance, by social and economic characteristics, 2002

Presence of children in home and	Most educated person in household					
	Primary		Secondary		University	
Expenditure quintile	Urban	Rural	Urban	Rural	Urban	Rural
No one under 17						
Lowest Quintile	76%	89%	54%	77%	63%	64%
	59%	81%	55%	67%	32%	45%
Middle	44%	76%	49%	70%	32%	46%
	51%	78%	32%	58%	22%	37%
Highest Quintile	73%	90%	31%	64%	15%	46%
One or more children						
Lowest Quintile	60%	66%	42%	52%	39%	46%
	62%	63%	42%	46%	28%	33%
Middle	48%	59%	39%	47%	26%	30%
	59%	65%	35%	44%	15%	34%
Highest Quintile	51%	65%	33%	46%	20%	33%

Only in about 15 to 22 percent of university-educated urban families in the top 40 percent of the expenditure distribution are adults completely uninsured, although among rural families, even the well educated have a significant chance (one-third to one-half) of having no adult insurance.

Effects of insurance on seeking care

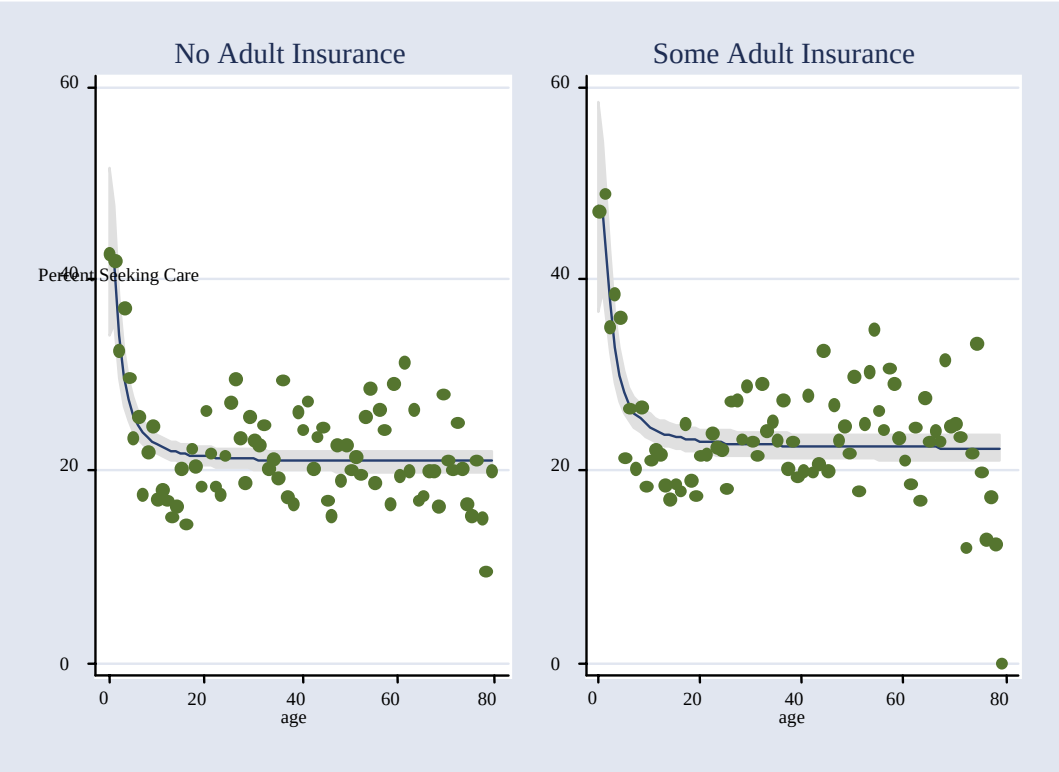
The survey asked respondents if they or their children had experienced a number of adverse health conditions in the two weeks preceding the interview (Table 8). Those who had a condition were asked if they received treatment or medication. Fewer than half the respondents received care for any of the conditions on the list. More than a third of patients with fevers, unexplained bleeding, and skin rashes were treated. Most other patients did not seek or receive treatment.

On average, families with adult insurance coverage are only slightly more likely to seek care than the uninsured. In all households, the youngest children are more likely to receive care when they are sick than are either older children or adults (Figure 2). The effects of age are considerably stronger than the effects of insurance, especially because childhood illnesses are especially likely to trigger an outpatient visit, and children are much more likely to be insured than adults. The effects are further obscured because pre-school children—who may be uninsured—are most likely to have outpatient visits.

Table A8. Percent of patients who sought medical care, by illness and household insurance coverage, 2002

	Household members covered by insurance			
Adult conditions	**None**	**Children only**	**Some or all adults**	**Total**
Fever	44%	50%	47%	47%
Unexplained bleeding	49%	31%	48%	45%
Skin rash	39%	39%	36%	37%
Difficulty in urination	14%	15%	22%	18%
sore throat and cold with high fever	18%	16%	18%	18%
Toothache	10%	15%	19%	16%
Burning sensation upon urination	15%	13%	15%	15%
Repeated indigestion in stomach	14%	14%	14%	14%
Eye disease	9%	9%	17%	13%
Shortness of breath	14%	10%	10%	11%
Sudden feeling of weakness or fatigue	11%	11%	11%	11%
Pain or swelling in joints while sleeping	10%	10%	12%	11%
Unexplained weight loss	9%	3%	8%	7%
Any other disease	34%	32%	36%	34%
Pediatric conditions				
Fever	38%	50%	54%	50%
Infection in the skin	38%	35%	46%	42%
Sore throat and tonsillitis with high fever	37%	24%	32%	30%
Diarrhea lasting for at least 2 days	28%	23%	32%	29%
Eye disease	22%	19%	31%	26%
Stomach ache or vomiting or diarrhea	22%	13%	25%	21%
Ear infection or ear ache	20%	19%	20%	20%
Worms		8%	18%	13%
Stomach ache without vomiting	13%	10%	13%	12%
Poor eating habits	21%	5%	12%	10%
Measles			10%	7%
Any other disease	45%	31%	43%	39%

Figure A2. Patients who received medical care for illness, by age and insurance status, 2002



[a]Figures are based on patients who reported at least one illness in the two weeks preceding the interview. Plotted points show the percent of such patients in each age group who received medical care.

To clarify the effects of insurance in the context of other factors, such as age, we used logistic regression to model the probability that a person with one or more of these symptoms would receive medical care (Table 9). Table 9 shows the effect on the odds of receiving care of demographic and household characteristics. Because the factors were somewhat different for children and adults, we modeled the two groups separately. In both groups, age is strongly related to receiving care. For the youngest children (under six years of age) the odds of receiving care decrease by 17 percent with each added year of age. Among school-age children, the odds continue to decrease, but by only about five percent per year. The effects of age for adults before and after the age of 50 are much smaller, but still statistically significant.

Table A9. Logistic regression models of patients who received medical care, by age, 2002

Variable	Adults 16 and older	Children Under 16
Effect of one year increase in age		
Preschool		0.8282 ***
School		0.9533 ***
Adult	1.0077 ***	
Elderly	0.9923 *	
Consumption quintile (lowest=1.0000)	(See note a)	
Second	0.8802	1.0863
Third	0.8849	0.9742
Fourth	0.9672	1.0247
Highest	0.9898	1.3149 *
Households with no adult insurance	0.7057 **	0.9214
Additional effect of consumption quintile for households with no adult insurance		
Second	1.1829	
Third	1.2594	
Fourth	1.3184	
Highest	1.5414 **	
Rural Location	0.8668 *	0.7990 **
Female	1.0864 *	0.9534
High School	0.9706	1.0504
College	0.8239 **	0.9196
Fever	3.3094 ***	2.5256 ***
Rash	2.2386 ***	1.8567 ***

a For adults, effect of expenditure level is modeled separately for those with and without adult insurance coverage. Variables labeled "additional effect" are the interaction of consumption times insurance coverage.

* p<.05 ** p<.01 *** p<.001

Models include all patients who mentioned at least one symptom in response to interview question number 203. A patient is classified as receiving care if he or she was treated or medicated for any symptom during the two weeks preceding the interview.

If at least one of the adults in the household is covered by insurance, the odds of care are greatly increased. The magnitude of the increase depends on the family's income (as measured by average monthly consumption). For families covered by insurance, income has little effect on care, but for the uninsured, but among uninsured families, the odds of care are 54 percent higher in the richest quintile than in the poorest quintile. Adults in rich uninsured families receive about the same medical care as adults with insurance, while the uninsured poor receive significantly less (table 8). In the lowest quintile, the logistic regression estimates that the odds of receiving care are about 29½ percent less for the uninsured than for households where at least one adult is covered.

Children in the upper 20 percent of the expenditure distribution are 31 percent more likely to receive care for one of the listed illnesses than those in the lowest 20 percent. Children in the middle of the expenditure distribution (21st to 79th percentiles) receive care at rates that do not differ

significantly from the poorest fifth. When the effects of income and geography are controlled, parents' education is not a significant predictor of access to care.

People in rural communities—and especially children—are less likely to receive medical care than urban families. Gender and education have small effects. College-educated adults generally have high incomes and are covered by insurance. Their negative coefficient in this equation reflects an adjustment for the effects of these other variables; it is not true that they receive less care.

Table A10. Percent of adults with illness who received care, by monthly expenditure level and insurance coverage, 2002

	Household members covered by insurance		
Expenditure quintile	**Some adults**	**No adults**	**Total**
Lowest	28%	22%	24%
	25%	22%	24%
Middle	25%	23%	24%
	26%	25%	26%
Highest	27%	29%	27%
Total	26%	24%	25%

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Sources:

Half of all adults who paid for outpatient visits spent 4.6 percent or more of their monthly household budget for a single visit.[8] Among the poorest 20 percent of households, the median burden was twice as high (9.5 percent), while for the richest patients a median visit cost less than 3 percent of their monthly household budget. A quarter of the poorest patients spent more than 17 percent of their monthly budgets if they made a single visit, and ten percent spent approximately a third or more.

Table A11. Distribution of Outpatient Visit Costs as a Percent of Monthly Expenditures, by expenditure level

Expenditure quintile	Median	75th Percentile	90th Percentile
Lowest	9.5%	17.2%	32.2%
-	6.6%	11.7%	19.9%
Middle	4.8%	9.5%	16.8%
-	4.7%	8.6%	17.4%
Highest	2.9%	5.6%	10.8%
Total	4.6%	9.6%	18.2%

[8] Follow-up visits are not included in this calculation.

Table A-12. Percent of households in which none of the adults are covered by insurance, by governorate, 2002

Governorate	Proportion of Households.	Standard Error
Cairo	40.5%	2.3%
Alexandr	28.9%	2.8%
PortSaid	32.9%	3.7%
Suez	37.7%	10.8%
Damietta	51.9%	4.8%
Dakahlia	51.9%	3.1%
Sharkia	47.4%	2.6%
Kalyubia	40.2%	2.9%
Kafr_El-	60.5%	3.9%
Gharbia	43.7%	2.7%
Menoufia	36.9%	2.3%
Behiera	52.7%	3.1%
Ismailia	37.7%	6.0%
Giza	39.4%	2.1%
Beni_Sue	52.1%	3.9%
Fayoum	51.7%	4.0%
Menya	50.4%	3.3%
Assuit	60.0%	3.9%
Souhag	65.1%	2.7%
Qena	55.9%	3.0%
Aswan	40.8%	6.2%
Matroh	42.4%	12.1%
North_Si	17.2%	8.7%

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